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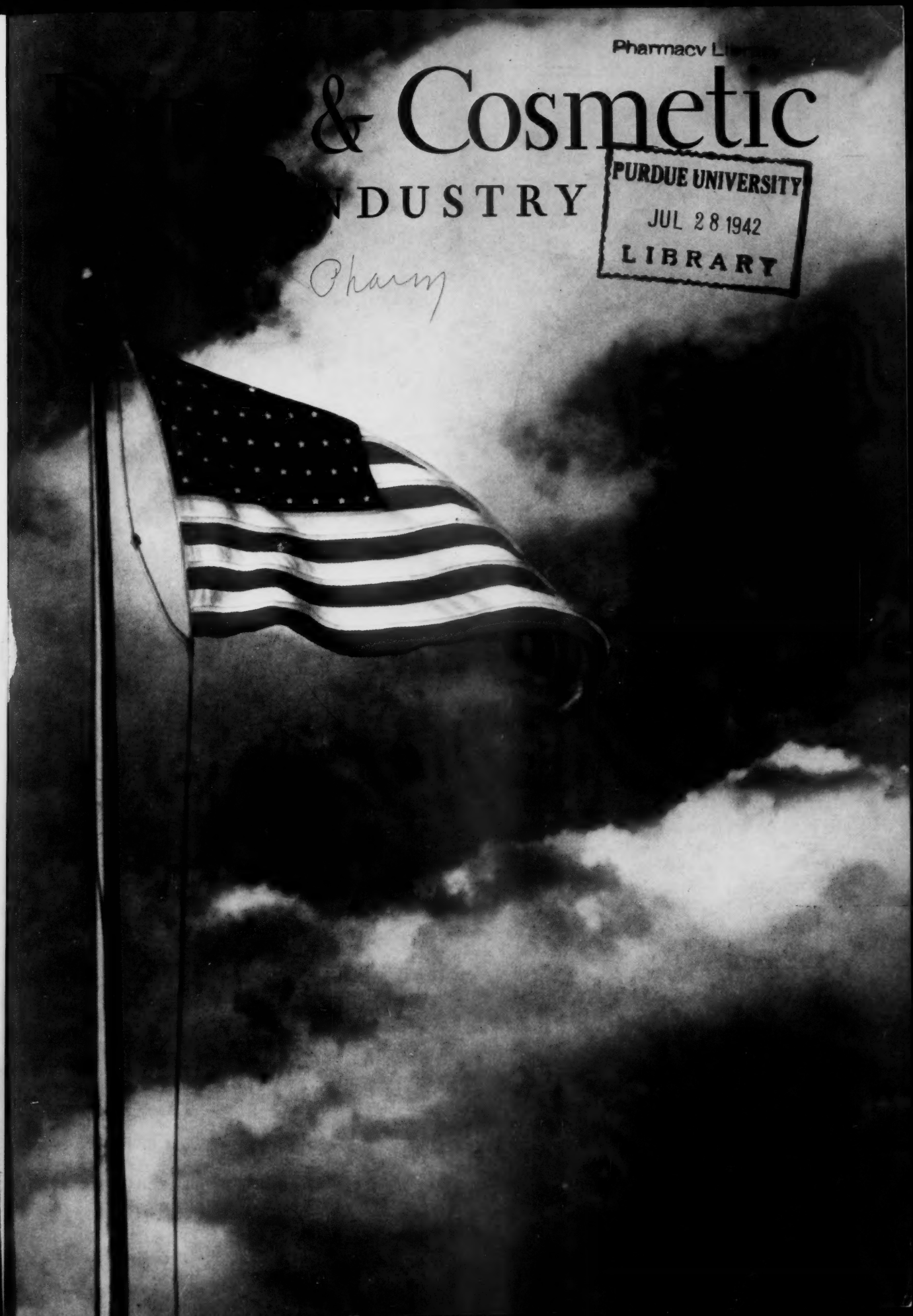
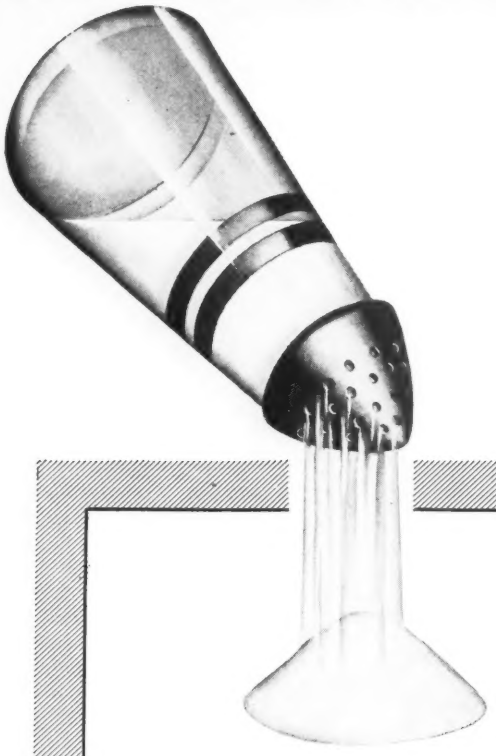


WHAT'S IN A SALT SHAKER ?



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Drug & Cosmetic INDUSTRY

JULY 1942

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Front Cover

Our cover this month is a reproduction of a photograph taken by John J. Loughlin, an employee of the Chemists' Club, New York, who makes photography his hobby.

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KEEPING POSTED

Health Supplies Branch

Now that the Health Supplies Branch of the W.P.B is under the direction of Francis M. Shields, the new chief has reorganized the work of the branch. Mr. Shields has set up various commodity heads. John T. Batson is now acting chief of Medicinal Chemicals and chief of Pharmaceuticals; Turner F. Currens is chief of Proprietaries and Botanicals; Howard Frank is chief of Orthopedics; James Burton is acting chief of Surgical Equipment; R. K. Myers is chief of X-Ray; and William J. McManus is chief of Projects. Floyd K. Thayer is consultant of the branch on pharmaceuticals and chemicals used in the drug industry. Milton H. Luce and Mark Merrell are serving in an advisory capacity with respect to drugs, vitamins, hospital supplies, and other drug products. Priorities come under A. C. Jolliff. Civilian supply comes under Dr. Louis S. Reed and Howard Pringle. Conservation problems are under F. T. Walker.

Proprietary Drug Committee

The vacancy that existed on the Proprietray Drug Manufacturers Industry Advisory Committee to the W.P.B. has been filled through the appointment of J. D. McIntyre, of Dr. D. Jayne & Son. This vacancy existed through the inability of D. D. Kenyon, of the Kondon Company to accept an appointment to the committee.

The committee has been divided into two sub-committees for the study of packaging problems. One sub-committee consisting of James Hill Jr., A. Plough, George H. Miller, and William J. Kirn, will study odd-shaped containers, irregular shapes of containers, extravagant packaging, standardization of bottles, and closures. The other sub-committee consisting of Charles S. Beardsley, H. M. Clark, J. G. Ayars, Dr. Frank L. Dewees, and William Y. Preyer, will study conservation of materials and finishing supplies, simplification of formulas, elimination of waste in manufacturing and distribution, and discontinuance of samples.

Another sub-committee to study the problem of substitutes for scarce items consists of Dr. J. D. McIntyre, A. Plough, and William J. Kirn. The Proprietary Association has formed its own committee to aid in this study, the members of this committee being Dr. George F. Reddish, Dr. J. D. McIntyre, Dr. E. G. Klarmann, Dr. Lewis M. Roeg, Dr. M. W. Tapley, Dr. I. W. Grote, Dr. E. C. Merrill, and Dr. Thomas Lewis.

Pricing New Products

New products now have to be priced with the permission of the O.P.A. One of the first applications to be approved by the O.P.A. for the pricing of a new product was that of E. R. Squibb & Sons. The new item is an anti-pertussis serum for treatment of whooping cough. The price of $12.50 per vial is based upon the trend of production cost and sales volume of the company's nearest comparable product—influenzae anti-haemophilis Type B serum Squibb. The price may be changed at any time, and after the product has been in production for a reasonable time, the price will be reviewed by the O.P.A. in light of actual cost figures. Retailers selling this new serum are allowed to apply the same rate of mark-up that he applies to similar products.

Cosmetic Restrictions

The cosmetic restriction order of W.P.B. is not far off. Direct indications of what form this order will take are being given out in advance of the issuance of the order. Restriction of the number of shades and odors of a wide variety of cosmetics will be ordered. This restriction of the number of shades and odors is expected to lead to a reduction of dealer and wholesaler inventories and a consequent saving of container and closure materials. A warning from W.P.B. has been given to

the effect that no metals are likely to be made available for cosmetic closures. This means that plastic, paper, and wood will have to be used for cosmetic closures. Limitation of some cosmetics considered less essential will probably be included in the order. This limitation will allow manufacturers to make a certain percentage of these materials compared with a certain base period.

Slow Movers Must Go

Proprietary manufacturers will have to streamline their products. They will have to discontinue the slow-moving items and the slow-moving sizes so that they will be able to use such materials as they are allotted for the items and sizes that are in good demand. Also sampling will probably have to be discontinued even though this is a most effective means of advertising employed by some manufacturers. Manufacturers must realize that the large amount of materials used in producing samples will help materially to relieve the shortage of materials for the commercial sizes.

Transportation facilities will most likely be soon overtaxed and manufacturers will be wise if they take steps to aid in the lightening of their use of transportation.

Modernize Formulas

The present time is an excellent one to bring the formulas of products up-to-date. Many proprietary products contain ingredients which cannot be proven of therapeutic value. These ingredients are present in the products because they have always been there. Now is the time to eliminate those ingredients. It seems likely that the elimination of ingredients, which to the best of medical knowledge serve no useful purpose, can be effected without the necessity of filing a new drug application in order to make the change.

Anti-Malarial Restrictions

Quinine and other alkaloids of cinchona has been further restricted by the W.P.B. The provision in the original order which exempted stocks of less than fifty ounces of quinine or totaquine from the sales restrictions of the order has been revoked. Also a new order prohibits the sale of any amount of cinchonine or cinchonidine for other than malarial purposes or cardiac disorders. The Health Supplies Branch of the W.P.B. states that the tightening of these restrictions is necessary because of anticipation of a severe shortage of anti-malarial preparations. Both of these further restrictions were recommended by the Surgeon General of the Army, the Bureau of Medicine and Surgery of the Navy, and the National Research Council.

The new order affects all pharmaceutical and medicinal chemical companies, botanical houses, wholesalers, retailers, physicians, and industrial users of cinchonine, cinchonidine, or quinidine. Any persons having stocks of more than ten ounces of any of them singly or in combination must file a report.

Fair Trade and the Ceiling

The question has been raised in a New Jersey Court whether or not Fair Trade contracts or the price ceiling regulation determines the prices at which goods are to be sold. The case is brought by Helena Rubinstein against Charline's Cut Rate, Summit, N. J. The retailer sold Rubinstein products during March at prices below the minimum prices stipulated in Fair Trade contracts. Therefore, under the price ceiling regulation, this retailer cannot raise his prices to the Fair Trade minimums, the retailer's counsel argues. This problem will obtain in many instances, and upon the final decision in this type of case will rest the success of Fair Trade during the emergency.

Safety Razors Thawed

The restriction placed May 22 on the sale of safety razors by the W.P.B. was lifted on June 29. During the period the order was in effect, manufacturers and jobbers were not allowed to dispose of any of their stocks of razors. This order was issued to enable the Army and Navy to arrange for the purchase of stocks needed for June and July, and this was done. It is expected that additional stocks of safety razors made from substitute materials will be available to provide for all military requirements after August 1. Adequate supplies will also be available for civilian needs.

Opportunity for Medicines

A shortage in the medical profession will shortly make itself felt in this country. With the armed forces requiring an extremely large number of doctors, a material increase in self-medication should result. Therefore, proprietary drug manufacturers should equip themselves to get as much of this business as they can. This can only be done by being certain that their products will produce the results claimed for them. Such people as do get to physicians will probably have ethical products recommended to them, but if proprietaries are able to increase their prestige, physicians are apt to recommend them also. It must be realized that before long people will not be able to get to physicians as often as they will like. Physicians are apt to be too busy to feel the urge to write many prescriptions. In fact, business with physicians might be so good that they will not feel the need to write prescriptions from the angle of protection of their businesses. Therefore they will tell a great many patients what packaged medicines

will clear up their conditions. Manufacturers of efficacious products who market them in the proper way can not only help themselves during this emergency, but they can aid the industry in emerging from the crisis on a much sounder basis than it has ever been in its history.

Demonstrators Okehed

The complaints issued shortly after enactment of the Robinson-Patman Act against numerous cosmetic concerns have been dismissed in part. It will be recalled that complaints were issued against Hudnut, Elmo, Charles of the Ritz, Primrose House, and Elizabeth Arden with regard to demonstrators, and other trade practices. These complaints were brought first under the Federal Trade Commission Act on the charge that it was unfair to other manufacturers for certain manufacturers to use demonstrators, and other trade practices, and secondly the complaints were brought under the Robinson-Patman Act on the charge that demonstrators, and other trade practices should be furnished to all competing customers on proportionately equal terms.

The charge brought under the Federal Trade Commission Act that the use of demonstrators and other trade practices was unfair to other manufacturers has been dismissed. However, the complaint brought under the Robinson-Patman Act that these practices should be furnished to all competing customers on proportionately equal terms has not been dismissed.

The dismissal of the complaints indicates that there is nothing objectionable in the use of demonstrators from the point of view of unfairness to other manufacturers. Therefore, it would appear that demonstrators are to be allowed to be used. The only difficulty must wait upon a decision in the second charge, for manufacturers might be ordered to furnish demonstrators to all their retail outlets on proportionately equal terms, and this might cause manufacturers to eliminate demonstrators altogether.

New Drug Views Changed

The Food and Drug Administration appears to have taken a different view with regard to enforcement of the new drug provisions of the Food, Drug, and Cosmetic Act. It will be recalled that the FDA for some time held that any manufacturer, marketing for the first time a product that had been on the market for many years and was well known to be safe, should file an application under the new drug provisions of the act. Now, however, in at least two cases, the FDA has advised manufacturers that it was not necessary to file new drug applications stating that the new drug section of the act is "concerned primarily with the safety of drugs under their contemplated conditions of use." In the case where this statement was made, the FDA continued: "Capsules having the composition described in your application will be generally recognized by qualified experts as safe for use; therefore, we are not considering the preparation with respect to section 505 of the Act since it is obviously unnecessary that you hold an effective application prior to interstate distribution of the product."

Transportation

There is nothing to indicate definitely what changes lie ahead for the manufacturers of this industry. Everything rests with the needs of the WPB, and these needs depend upon the requirements of the armed forces and the production ability of this nation. Aside from the shortages of raw materials caused by the requirements of the armed forces and lack of imports, the main consideration that might cause curtailment of the products of this industry is our transportation facilities. Transportation facilities naturally include railroads, shipping and trucking. Shipping is hampered by submarine activities along our coasts, and trucking is hampered by our inability to import additional supplies of rubber.

It is now up to the manufacturers in this industry to turn their attention to transportation facilities in addition to the other pressing problems that are confronting them. Transportation is a most serious problem as manufacturers will find out before very long. A strict allocation of some sort will most likely be announced shortly which will have for its object swift movement of goods vital to direct prosecution of the war effort. Things not vital to the success of the war will be allowed to move only when there is room to spare. Therefore manufacturers should move all the goods that they now have close to those markets in which they are to be consumed.

Perhaps it would be better for manufacturers to move their available stocks to markets well removed from their plants on the assumption that they will be able to supply the markets close to their factories by some means even though transportation facilities might be much tighter by the time that fall sets in.

But whether manufacturers like it or not, this transportation problem is going to be the main one before them during the coming fall and winter. The handwriting is on the wall, and even though they did not heed other warnings until it was too late, they will only ignore this one to their sorrow. The amount of war goods and civilian goods essential to the health of our population that must be moved during the next fall and winter will probably tax our transportation facilities to the utmost. It therefore behooves every manufacturer in this industry to get as much stock as possible as close to the points of consumption as possible.

(Continued on page 73)

REPORT ON BOTANICALS AND PERFUME PLANTS IN THE UNITED STATES

By H. G. KELBLY

Out of the total volume of approximately 800 drug and essential oil plants used in this country, the United States formerly imported more than 30 per cent. of its supply from Europe. With our entrance into the war in the Orient another 25 per cent. of our sources for these commodities has been removed from commerce. Nearly fifty countries that formerly supplied us with drugs and oils are now cut off as potential sources of supply. A shortage of imported items has resulted in price advances and, in many cases, the withdrawal of the item from the market.

Because of this condition, a great amount of interest has been expressed in the possibilities of growing medicinal and volatile oil plants as specialty crops by many people throughout the United States.

During the latter part of 1940, when conditions confronting consumers of drug and cosmetic raw materials first became acute, we conducted a national survey to discover what was being done in the various states to meet the conditions forced upon us. The result of that survey indicated considerable interest in the subject, but that not a great deal had been accomplished in the way of actual production.

Now we have completed a similar survey to determine what progress has been made in the past eighteen months, and whether or not this country is any closer to the goal of self-sufficiency in these vital materials.

Considerable correspondence has been received during the period of our investigation and it would seem most logical to have these communications tell their own story.

H. F. Root & Son, West Palm Beach,[1] writes: "Your esteemed publication foresaw all the current shortages of drugs, essential oils, and gums well over two years ago, copies of which we still refer to in which you forecast coming shortages item by item and place by place. Nothing could have been more specific. The January 1940 edition on that subject was and still is a masterpiece of prophesy.

"As you know we first began growing psyllium some two years ago when shortages appeared on the horizon. We certainly learned where, how and when, to grow both dark and blonde varieties, but unfortunately it seemed as though every boat from India would dump psyllium on the market at zero prices. Large user-firms were not interested in encouraging production. Having

At the lower left of the opposite page is shown John Root standing in a field of belladonna and henbane in Florida. To the right of this is shown lemongrass at the University of Florida. Directly below is shown cardamom at the University of Florida, and to the right is serah grass from which is obtained Java citronella oil.

encountered too much apathy on their part to American production, we abandoned our psyllium growing in favor of our present program of belladonna, henbane and sage. We have some carefully treasured viable

seed of the French black psyllium we are saving against the day when we secure real interest from psyllium buyers.

"Our best success at present is with henbane of which we are growing three varieties, annual, biennial rough leaf, and biennial smooth leaf. Our acreage is not large, only several acres all told in henbane but we are prepared to enlarge this another season. We have some thriving belladonna now in bloom, but unfortunately our area of planting is restricted because the quality of the seed we obtained was so poor. With our own seed supply in the future, we can plan on increasing our plantings.

"Now sage growing at present is a most peculiar problem in that there is simply no decently viable seed obtainable nor in prospect, as the plants seldom set seed. In our acre field of sage (Salvia Officinalis) and mostly good sized plants, only ten per cent. are blooming. From present experience an acre of sage will produce only about two ounces of seed. Our present plants are the condensed result of scouring the U. S. A. and England for sage seed a year ago and the percentage of germination was low indeed.

"However, we are fortunately placed in this matter of sage now, as we can split up our plants twenty for one and thus increase our acreage. We should very much like to try growing some clary sage for the essential oil field, but know not where to procure seed or plants, but have every reason to believe it might do well because of our experience with the edible sage. Inasmuch as our sage keeps on growing 12 months in the year you may see the tremendous advantage we shall soon have com pared to any Northern plantings, if any.

"We had no guide to govern our attempts to grow belladonna, henbane and sage here as every condition of climate, soil, insects, and plant diseases were different. Our modest success at present is only the result of trial and error. We must have personally hand potted ten thousand belladonna plants (and lost them) to find out that though the potting method works elsewhere, here it would not.

"Thus we can record present success with those three items of belladonna, henbane and sage.

"Stramonium was a dead cinch. We grew several acres, but the prices were so low, and buyers talked

about abundant South American supplies of stramonium that we didn't even bother to harvest it. Let us say this from our experience with drug growing. The growing is one problem, but harvesting and drying is another and much more complex problem."

National Medical Nurseries, Palm Beach,[2] "My twenty years of work here in raising volatile oil plants and plants producing alkaloids has been mostly experimental and, as former student of Prof. Edward Kremers, of the U. of W., had the advantage of doing my own chemical work, which permitted a closer study of the relation of plant to soil conditions and climate. Since I happen to be one of the government plant experimenters for this district, much plant material has passed through my hands.

"I was soon to find out that a plant thriving and producing a satisfactory amount of its principles in the mountains or in the north will produce it in a much lesser degree when the same plant is transferred to our moist lowlands of the subtropics. On the other hand plants brought here from the tropics will find this climate a bit dry. Will say that I have seen summers in this district dry enough to cause the citrus trees to cast their leaves, and yet, we do have times of excessive moisture.

"While I have great faith in the possibilities of the South East Coast of Florida, I do believe that only such plants would be easily grown with success as are indigenous to the subtropics or to the higher altitudes of the tropics and can stand at times seven inches of rain in 2 hours or 27 inches in 42 hours as during the 1928 hurricane. This excessive rainfall would naturally point to the destruction of all soft wooded plants, be they annuals or perennials, where the drainage is not perfect.

"The trouble in growing many tropical plants in this section is the lack of heat, the lack of atmospheric and soil moisture (we have, I repeat, long dry spells) and the lack of the proper soil, though many plants do seem to accommodate themselves to various soils. From November to March the growth of such plants is not only retarded but ended in some cases. Croton tiglium could not endure one of our cooler spells while Guiacum officinale has grown but two inches per year for four years."

Beverly Hills Plantation, Inc., Alachua,[3] "I wish to state that we have gone considerably beyond the experimental stage with certain herbs. Since we have had success with some of the herbs we are now 'growing' our own seed and have also given away considerable amounts to our friends of the following herbs: sweet basil, Florence fennel, Persian dill, Persian coriander, other coriander, tarragon (by rhizomes), Summer savory, anise (by root), spearmint, mountain mint, round mint, peppermint, and also other mints.

"Exclusive of the mints, the seed for practically all of our herbs were originally brought from Iran (Persia) to Connecticut by Mrs. Essa, my mother, in 1918, and I started planting them in our plantation about two years ago.

"Of the above herbs we could immediately plant, in addition to our trial plantings which we always have on hand, from one-fourth to one acre of each from the seed we have on hand. This is relatively small due to the fact that we have never grown our herbs for commercial purposes but rather for our own culinary purposes and also for the sheer fun of growing them. We can grow other herbs, as we have in the past. So far we have tried about twenty other herbs and discovered that they will grow well under certain conditions on our types of soils (Gainesville, Orlando and good Norfolk mostly), whereas the above herbs need no special treatment and do well by simple but constant cultivation. Most of the annuals will grow all year round without any noticeable retardation in growth.

"To date we have had many inquiries as to whether or not we could or would go into herb planting commercially. Some of the propositions are interesting so that there is a strong possibility of our doing so. We possess the necessary equipment and also an efficient number of negro hands to carry out any program we might decide on."

Agricultural Insecticide Co., Inc., Belle Glade,[4] "Seeing the possibility of a shortage in essential drugs some months ago I started the propogation of a menthol bearing oil plant. It was found to be ideally suited for this particular section of the United States. It will grow throughout the year producing oil three to four times a year. The average yield of oil from the green herb is .7 per cent. The tonnage per acre of green herb per cutting will vary between 12 to 15 tons. The oil will analyze between 87 per cent. to 90 per cent. iso-pulegone. This iso-pulegone can be fractionated into menthol and isomeric menthols. By mid-summer there will be enough plants to expand to almost four sections of land. This, however, depends on whether or not the War Production Board will grant the priority rating sufficient to put up a distillation plant sufficiently large to do some good in relieving the present shortage of menthol. A small plant is useless.

"To give you a conception of what the picture looks like with the trade and Washington, it will be necessary to make a few statements which will be amusing. In my correspondence with one division of the government which has to do with health, I was told that the present production of menthol was sufficient to take care of our National needs. Another states there is no shortage of menthol while another states menthol is not essential or necessary. Still another states so little menthol is used in medicine that it can be forgotten. Of the numerous letters I have received from Washington not one was acquainted with the fact that of our total imports 97 per cent. came from Japan and China. That the 3 per cent. came from British and French possessions which are also definitely cut off from importation. Not the first official knew that the domestic total annual production (average for ten years) was 871,182 pounds of peppermint oil which would produce (if the

total quantity was used for menthol) 422,636 pounds of menthol. This is very close to the total imports of 422,606 pounds of menthol and menthol bearing oils. It is, however, impossible to use the total production of peppermint oil for menthol. We need this oil for other purposes.

"In order for others to get into the menthol picture it would take at least 15 months. In that period a most critical situation will exist.

"I have a small amount of Japanese mint. It will be a year before any real acreage can be planned. The same applies to camphor. Our small plots will take a year to expand to any real acreage. Our lemongrass is moving along nicely and may be worth talking about this coming Fall."

Royal Palm Nurseries, Oneco,[5] "We are very much interested in producing aromatic plants. We have been endeavoring to obtain definite and precise information on the many angles to this oil question, and are experiencing considerable difficulty in getting anything of an exact nature.

"The writer recently attended the Florida Horticultural Society meeting in West Palm Beach, and at the meeting the nucleus of a committee was started to study this oil subject. This committee is under the guidance of Mr. Blackmon and Mr. Wilmott of the University of Florida at Gainesville. It is our suggestion that you keep in touch with these gentlemen because in the near future something will surely be worked out."

Agriculture Experiment Stations, College of Agriculture, University of Florida, Gainesville,[6] "Our department has sage, coriander, dill, sweet marjoram, sweet basil, bush basil, borage, thyme, summer savory, fenugreek, mugwort, valerian, rue, lavender, and licorice under trial at several of the substations and laboratories. Coriander and the basils are doing exceedingly well. We have also located plants growing in South Florida from which a modest start could be made, provided the occasion should arise. For instance, there are scattered plants of Cassia fistula, Cinnamomum cassia, Erythroxylon coca, Soraca indica, Ylang ylang, Anatta, Jabotacaba, Patchouli, Pimenta acris, and Canella.

"Lemongrass is being grown on a commercial scale in the Everglades by the U. S. Sugar Corp. We are bringing in from Puerto Rico some good strains of citronella and Jamaica ginger for trial. We can grow Koellia mutica and bergamot mint seems to do well. There is a certain amount of Cassava grown in the state and much more could be grown should there be a demand for it. I have lately received planting stock of Canna edulis which produced a good quality of arrowroot starch."

The University of Texas, Austin,[7] "I think there are definite possibilities in developing an essential oil industry in Texas, but, as usual, too few people are fully aware of them. To my knowledge nothing is being done along this line in Texas, except the distillation of cedar wood oil from Juniperus Mexicana, and this on a very small scale.

"A number of faculty members here at the University, including Dr. Simon Williams of the Bureau of Industrial Chemistry, are interested in seeing a bureau

FIELD OF BLACK PSYLLIUM

of plant chemistry and research established in connection with the University of Texas. But what success the group will have remains to be seen.

"So far as rose oil and senna production in Texas are concerned, I have not one word of information. I should think, however, that both could be produced. Southwest Texas is admirably adapted to senna culture if only planting seed could be obtained.

"The College of Pharmacy has recently opened a medicinal plant garden and we are hopeful of experimenting with the production of drug and aromatic plants."

Texas Engineering Experiment Station, College Station,[8] "We would like to advise that the Texas Agricultural Experiment Station and the Texas Engineering Experiment Station, of A. & M. College, are conducting a joint research project on the recovery of rose oil from East Texas roses. At the present time the investigation is not far enough along to be able to give you any information. However, when such information is available, we shall be glad to get in touch with you."

Verhalen Nursery Company, Scottsville,[9] "We are growing lavender as a landscape plant and had no large acreage of it from which to cut flowers for the perfume industry. The publicity that our name has received on it was on a few ounces analyzed by Dr. Kolachov's Laboratory at Louisville, and which revealed about double the essence that the British grown normally yields. While the plants grow vigorously here they seem to be subject to sunburn which kills parts of each plant and which naturally is detrimental to growing it as a commercial crop in large quantities. We understand there is a considerable acreage of lavender in the Pacific northwest.

"Caraway and coriander does not seem to be 'at home' in this climate or possibly on account of our somewhat acid soils here. We have tried them in two years and can not see any commercial possibility for them.

"We are growing castor beans commercially for oil production. We have grown sixty and fifty acres the past two seasons and have approximately the same quantities in again this year. We are devoting our attention to the Conner variety for oil production. One analysis showed 51.6 per cent. and another one showed 56 per cent. oil."

T. L. Allen, Dallas,[10] "Last year was the first year that I really went after producing sage. That year I had 14½ acres but some of this was put out late. From this planting I gathered well over three tons. The second year I figured it would produce 1000 pounds per acre. It is good, clean land and is cultivated three to four times each year.

"This year I have about three times as much as last year and the prospects look very good. There are no insects that hurt the sage. After it is harvested it is put in a drying house until thoroughly cured. It is more trouble to produce than ordinary crops but I get a kick out of doing just that. If you have anything you would like me to play around with just let me know. P.S. The sage seed is planted in beds, then transplanted in rows 40 inches wide 24 inches apart when the plant is about 3½ or 4 inches high."

The University of Georgia, Athens,[11] "We have in the experimental stations and in the College of Agriculture an unlimited acreage which could be used for commercial production of drug and cosmetic items as well as for experimental purposes. Last year we had approximately sixty acres in various medicinal plants, but due to bad seasons, our crop was almost a complete failure.

"We would be interested in a study as to the possibilities of volatile oil producing plants for cosmetic and industrial use, but we have not been able to go into this particular phase of the matter due to the fact that seeds or other propagating plant parts were not available. If you have any suggestions along this particular line as to where we might secure some seeds, we could experiment with them in the various experiment stations and the Agriculture College in this state."

Anderson Floral Company, Wadena,[12] "We grew almost 3 acres of belladonna last year. It was rather late in the season when we obtained the seed so the yield was small, about 100 pounds of leaf. The entire crop was winter-killed due, we believe, to an unusual winter, very little snow, and alternating thawing and freezing weather. We matured some plants under glass which gave us a seed crop. This seed germinated very nicely and we have another crop under glass which we expect to put out as soon as the weather is suitable."

Edwards Manufacturing Co., Inc., Minneapolis,[13] "We are producing ergot with very good success. It is done on the same basis of operation as conducted elsewhere in the world with the exception of a few secrets that I think are exclusively our own."

Montana State University, Missoula,[14] "I am unable to give you much definite information concerning growing of botanicals. However, there are two small projects being carried out on henbane and I am sure there will be a large supply of the wild plant available."

University of Washington, Seattle,[15] "We have one of the most extensive college drug gardens in which we have been experimenting with a great many economical plants and plant drugs. There are also quite a number of growers in this section of the country producing mints, lavender, and other crude drugs. Mr. W. L. Wyckoff has an extensive lavender farm about thirty miles from Seattle. Quite a number of peppermint and spearmint growers are producing the oil near Kelso and Vancouver, Washington. Considerable amount of melada has been grown near Pullman and Chehalis, Washington. I believe there are some twenty or twenty-five acres in these two tracts."

It would seem from the foregoing correspondence that what is most urgently needed, if the United States is to become independent of foreign sources for,

MEDICINAL PLANTS AT UNIVERSITY OF FLORIDA

at least the basic raw materials used in the drug, cosmetic and related fields, is some form of cooperative planning.

Three important limiting factors in the production of these crops are degree of adaptability, market demand, and availability of propagating material. Various governmental agencies, and educational institutions, have already prepared detailed information on the adaptability of the numerous species of drug plants to the soil and climatic conditions in the different parts of this country.

Market requirements, however, are not so generally understood with the result that misdirected enthusiasm might well cause overproduction in some items while others, equally important are more or less neglected.

It is estimated that twenty acres of aconite, based upon a yield of 500 pounds of dried drug per acre, would supply our domestic needs. Less than 1,000 acres would supply the needs of the United States in normal times for the following drugs: belladonna (Atropa belladonna) 400 acres; digitalis (Digitalis purpurea) 100 acres; stramonium (Datura stramonium) 300 acres; henbane (Hyoscyamus niger) 200 acres.

Several of the commercial drug companies grow their own digitalis. In Washington and Oregon, where it has spread from gardens, this plant is found growing wild, and sufficient material is available for practically all our needs. Stramonium similarly has gone wild in many parts of the United States and could be collected if the labor situation permitted.

DIGITALIS PLANTS

One of the most ambitious programs for the cultivation of belladonna has been undertaken by S. B. Penick & Company of New York. Belladonna is one of the items that we have not been able to produce in any large amount. Yet not only are we forced to grow enough for our own use, but now we have to supply our

allies with this drug, which is one of the sources of atropine.

This company has selected large and small acreages in several states throughout this country. They have furnished seeds to the growers and will supervise as much as possible the cultivation of this important drug.

Belladonna was grown to a limited extent during the previous World War, but for reasons of price the culture ceased when normal trade relations were reestablished. Last year one grower with approximately 60,000 seeds was able to have only 60 plants come to maturity. It is estimated that about 200 to 300 acres of belladonna were grown last year and perhaps not more than 25 acres gave a satisfactory crop. Since this was the first year of cultivation on a large scale it is hoped that growers will benefit from the experiences of last year.

The drugs which produce essential oils would require greater acreage than those which are strictly of a medicinal nature. Such plants are cumin, 2,000 acres; coriander, 4,500 acres; anise, 25,000 acres. Dill, caraway and fennel would require some extra thousands of acres. The latest available information shows that in normal times Holland produced 16,000 acres of caraway seed; that Russia had 10,000 acres each of anise and fennel oil; and it is estimated that 30,000 acres were devoted to coriander. The total production of lavender oil in Europe would indicate that about 400,000 pounds of this oil are used, but it is now practically unobtainable in this country.

These are a few of the items that offer possibilities for culture in America. The most serious problem confronting the development of this new industry, however, is the inability to get seed for the propagation of native stocks. Drug houses do not carry stocks of seeds and commercial seedsmen never have calls for these items in normal times.

But something definite is being done to relieve the situation in propagating material. The United States Department of Agriculture, Washington, writes us under date of April 28,[16] "Seed for planting approximately 600 acres of belladonna has now been planted in greenhouses and the latest reports indicate that the seedlings are in good shape and ready to set to the field as soon as the danger of frost is past."

The House Agriculture Committee has concluded hearings on H. R. 4591, introduced by Rep. Andresen, Minn., which calls for an appropriation of $2,000,000 a year to encourage the growth in the United States of trees, plants and shrubs which produce commodities heretofore imported into this country.

Included would be many plants from which drugs, essential oils, spices and other commodities are obtained. The Andresen bill provides for encouragement of cultivation of the trees, plants and shrubs by federal and state experimental stations. In connection with his bill, Rep. Andresen writes DRUG AND COSMETIC INDUSTRY:[17] "In my opinion, this type of research is very urgent. The closing of necessary imports from the Far East and other places in the world, should be sufficient reason for the passage of the bill. Hearings have been held on the measure by the House Committee on Agriculture. It is my hope that the bill will be reported for action in the House and Senate during the present session so that the Government may go forward with the experimental program. The bill itself calls for an authorization, and I am satisfied that if the legislation is approved, the appropriations will be forthcoming."

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ACETOPHENETIDIN

By M. A. LESSER

ACETOPHENETIDIN is not a new drug. However, even after decades of use and despite the introduction of many new, potent therapeutic agents, it remains one of the most frequently prescribed drugs of the medical armamentarium. Formerly widely used for its antipyretic effect, but now extensively employed for its analgesic action, acetophenetidin is considered a safe drug when properly administered by those fully aware of its dangerous potentialities.

Since pain is by far the most frequent symptom encountered in medical practice, drugs for the relief of pain constitute one of the most important, if not the most important groups of agents employed by the physician. This fact is clearly reflected in prescription surveys made during the last decade. From these studies, in which drugs are ranked according to their frequency of prescription usage, it is quite evident that acetophenetidin is not only one of the leading drugs among the agents employed for relieving pain but also one of the most valuable of all drugs.

Thus in the Department of Commerce prescription survey[1] made in St. Louis in 1932, acetophenetidin held third place among the 80 leading prescription chemicals. Three years later, in a follow-up study, acetophenetidin occupied rank number 4 among prescription chemicals.[2] Another survey, this one reported from Purdue University,[3] showed that in 1939, acetophenetidin still occupied fourth place among all standard drugs and drug combinations, whether official or non-official. However, in the most recent survey, that of Andrews,[4] covering Maryland and parts of adjacent states, acetophenetidin was listed as the second most frequently prescribed drug; being outranked only by acetylsalicylic acid.

Acetophenetidin, together with acetanilid, constitute what is known as the "coal-tar" antipyretics group. In texts on pharmacology,[5, 6] both of these drugs are considered under one heading, but acetophenetidin is notably less toxic than its predecessor, acetanilid. Indeed, it was the toxic nature of acetanilid that led chemists to seek a compound with similar pharmacological properties but with less danger of undesired side effects. Of the many compounds offered, only acetanilid, itself, and acetophenetidin have survived fifty years of clinical trial. However, the latter, because of its greater safety, has largely replaced the former in medical usage. Fortunately, as was not the case in the last war when prices of this drug rose to unprecedented heights, this country is completely independent of foreign sources for its supplies of acetophenetidin.[7]

Acetophentidin U.S.P. (Acetphenetidin U.S.P. X) or phenacetin is a phenetidin derivative. Chemically it is acetyl-para-aminophenetol and differs from acetanilid (an aniline derivative) by the presence of an ethoxyl group. The white crystalline scales or crystalline powder are odorless and have a slightly bitter, but not objectionable taste. It is only slightly soluble in water, but is quite soluble in glycerine and alcohol. Phenacetin is incompatible with phenol, salicylic acid, strong acids and strong alkalies, iodine, oxidizers, and when triturated with chloral hydrate or antipyrine forms a semi-liquid mass.

Always given orally, acetophenetidin is quickly absorbed from the gastrointestinal tract and is rapidly excreted by the kidneys as conjugation products which can impart a dark color to the urine. It is generally believed that the drug owes both its therapeutic activity as well as its toxic effects to its conversion to paraminophenol in the body. The average single dose of acetophenetidin is 0.3 gram. However, it is often advised to begin with a smaller dose (0.2 Gm.), and to repeat the dose every three hours, if necessary, for a few doses.[8, 9]

Pharmacologically the two important systemic effects of acetophenetidin are antipyresis and analgesia. The antipyretic action of the drug is due to its action on the heat-regulating centers of the central nervous system, causing a greater dissipation of body heat through vasodilatation of the cutaneous blood vessels. Moderate doses cause a marked reduction of temperature in patients with fever, but such doses have but little effect on the temperature of normal individuals.

Carefully controlled experimental studies have indicated that on the basis of safety and efficiency, phenacetin is quite outstanding as an antipyretic drug.[10, 11] Indeed, in one series, this agent was used as the basis of comparison for all the antipyretics tested.

However, there appears to be a growing tendency to avoid the use of antipyretic drugs for reducing fever. Although acetophenetidin is still frequently used for this purpose, there is an increasing appreciation of the true immunological and defensive significance of fever. Hence greater reliance is being placed upon simple hydrotherapeutic measures (e.g. baths and alcohol sponges) than upon drugs to control high fevers.[5]

It is really as an analgesic that acetophenetidin occupies its important place in every-day therapeutics. The mechanism by which phenacetin produces its pain-relieving action is still obscure, although it is known that it is due to a central effect. The analgesic action is selective and, unlike hypnotics (e.g. barbiturates), it is not a central depressant.[5] Recent clinical experiments have shown that, when given in 5 grain doses (0.3 Gm. or therapeutic dose), acetophenetidin raises the pain threshold by about 35 per cent.[12]

The analgesic action of acetophenetidin finds extensive application in the treatment of neurologic, muscular and joint pains, and for the relief of headaches, migraine, dysmenorrhea and similar conditions. It likewise finds frequent use in connection with relief of the pain and aches associated with fever and with many acute infectious diseases.[8, 13] It is not, however, of much value against severe pain such as that due to injuries or that caused by inflammation. As a general rule if relief of pain is not obtained with ordinary doses of phenacetin, larger doses are also ineffective.

When giving acetophenetidin, or any analgesic for that matter, it must be emphasized that pain itself often affords an excellent index to the underlying condition. Many authorities[14] therefore feel that drugs of this nature should not be administered until the basic cause has been determined. Barr,[15] for example, is of the opinion that, "The use of analgesic drugs should be limited chiefly to the relief of pain during the time when the cause is being determined and to the symptomatic treatment of those conditions in which the cause can not be removed or in which the distress can not be replaced by other methods. Many pains are best treated by operative procedure, others by immobilization of the affected parts or by physical agents. Still others may be greatly modified by careful attention to psychological and environmental factors. In such cases drugs should be employed only as adjuvants."

Much has been said and written about the dangerous, toxic effects of acetophenetidin, and indeed there is some definite justification for this view. As a matter of fact, however, some clinicians regard acetophenetidin as the safest of all of the synthetic analgesic drugs. In speaking of this drug, Barr[15] said that it is "so satisfactory an analgesic and apparently so free from serious toxic side actions that there is no valid reason for using any of the earlier and more dangerous or the later and more complicated coal tar antipyretic drugs." He was, of course, aiming his remarks at the medical profession and not at the general public.

In one of the antipyretic studies cited above,[10] it was found that oral toxicities of both phenacetin and aspirin (acetylsalicylic acid) were the same for mice, and that the superiority of acetophenetidin as an antipyretic was therefore not offset by any greater toxicity.

Nevertheless, the indiscriminate use of this drug, alone or in combination, in large doses or over extended periods of time, or its administration to persons with an idiosyncrasy to it may result in acute or chronic poisoning. The untoward results that may ensue include cyanosis, collapse and other disorders such as eruptions, erythemata, itching, or even angioneurotic edema. There also may be a burning sensation of the mouth or throat, nausea or vomiting, excessive sweating, or, more rarely, mental confusion or apathy, or disturbances of hearing. Acetophenetidin is not, however, considered a habit-forming drug[5, 16], and is not listed among the agents designated in this category.[17]

Of course these untoward effects occur more frequently with acetanilid than with acetophenetidin, but they can result from the latter drug, especially when not properly used. It is for this reason that the government, through the Food and Drug Administration, has classified acetophenetidin among dangerous drugs if the daily dosage provided exceeds 15 grains.[18] This does not apply to physicians' prescriptions but does effect preparations sold "over the counter." A typical opinion expressed by the F.D.A.[19] with regard to this drug is as follows: "It is well established that frequent or continued use of acetophenetidin-containing preparations may be dangerous, causing serious blood disturbances. This fact should be borne in mind in devising labels for this preparation to conform with the requirement of section 502 (f)(2) of the Act that the labeling of drugs bear adequate warnings."

There is no specific treatment for acute poisoning by either acetanilid or acetophenetidin. If recently ingested, a stomach tube may be needed to remove the drug. Artificial respiration may be required and a blood transfusion may be necessary. Other supportive measures are generally required. In cases of chronic poisoning, the offending drug must be completely withdrawn and measures must be employed that will assist the patient back to health.

When these possible dangers and the other limitations are taken into full consideration and the drug is properly administered, acetophenetidin constitutes one of medicine's most valuable drugs—a fact clearly evidenced in the prescription surveys cited above.

Acetophenetidin is best dispensed as powders, in capsules or in tablet form since it is too insoluble to be dispensed in aqueous solutions. The drug is often prescribed alone, but more frequently is employed in combination with other drugs such as acetanilid, acetylsalicylic acid, caffeine, barbiturates, codeine, sodium bicarbonate and other drugs. If the ingredients are

carefully selected and their percentages carefully balanced, such combinations offer a smoother and more efficient analgesic effect than might otherwise be available. Then, too, the possibilities of toxic reactions due to specific effects of the individual ingredients are likewise materially reduced. According to Goodman and Gilman,[5] such analgesic preparations represent one of the few valid uses of drug combinations.

Combinations of acetophenetidin with another analgesic, most frequently acetylsalicylic acid, and caffeine are frequently prescribed by physicians for the relief of headache and neuromuscular pains. A wide variety of such preparations, differing only with regard to the proportions of the several ingredients, are marketed under various trade names. A typical preparation of this type is the following prescription recommended by Waggoner:[20]

Acetylsalicylic acid	3.5 Gm.
Acetophenetidin	2.5 Gm.
Caffeine	0.5 Gm.

The ingredients are mixed and divided into 15 capsules.

According to Barr,[15] the usefulness of the caffeine in such combinations is not well explained, but it has been observed that the caffeine itself has a beneficial effect on certain headaches, particularly those developing from fatigue. He emphasizes, however, that some people are sensitive to this ingredient and that even though the pain is alleviated, sleeplessness may be caused by such preparations.

Sometimes acetophenetidin is combined with acetanilid. Two typical preparations, indexed as headache capsules or C.A.P. capsules in the *Pharmaceutical Recipe Book II*[21] are as follows:

	I	*II*
Citrated caffeine	6 Gm.	12 Gm.
Acetanilid	12 Gm.	20 Gm.
Acetophenetidin	18 Gm.	30 Gm.

In both formulas, the quantity of the mixture provides for 100 capsules. The ingredients are triturated together until intimately mixed and then packed into capsules of appropriate size. The dose is one capsule.

Thornton[22] lists a very simple mixture for use in neuralgic or rheumatic headache as follows:

Acetophenetidin	8 Gm.
Phenyl salicylate	4 Gm.

When mixed, this quantity suffices to make twelve headache powders.

For more severe types of pain, acetophenetidin is sometimes used in combination with other, more powerful, but more dangerous pain-relieving drugs such as codeine. A case in point is the following prescription[20] for an analgesic mixture for radiculitis (inflammation of the nerve roots):

Acetylsalicylic acid	3.5 Gm.
Acetophenetidin	2.5 Gm.
Caffeine	0.5 Gm.
Codeine sulfate	0.25 Gm.

Mix and divide into 15 capsules.

Somewhat similar is the following combination advocated[23] in severe cases of sciatica:

Acetophenetidin	3.00 Gm.
Codeine sulfate	0.25 Gm.
Acetylsalicylic acid	5.00 Gm.

Divide into 15 capsules.

A simpler combination of acetophenetidin and caffeine citrate may also be used as an analgesic for sciatic pains.

Mixtures of phenacetin and other drugs are frequently advocated to afford relief from the distress of dysmenorrhea (painful menstruation). This is an important problem and one frequently encountered in medical practice. Where possible, Waggoner[20] advocates that the condition should be corrected, rather than administer analgesics from month to month. However, in some cases analgesic medication is necessary and the physician must be the judge of the analgesic most suited to the individual case. One preparation, to be used alone as an analgesic or in combination with the antispasmodic drug, atropine, suggested in a standard therapeutic manual,[23] consists of:

Acetophenetidin	4.00 Gm.
Caffeine citrate	0.36 Gm.
Sodium bicarbonate	4.00 Gm.

Mix and divide into 12 powders; to be taken with water.

Quite recently Ainlay[24] studied the effectiveness of a combination of acetylsalicylic acid, acetophenetidin and propadrine hydrochloride as a palliative in the treatment of dysmenorrhea. The patients were given three capsules of the combined drugs daily on the onset of distress and the medication continued until the third day of the period. Failure of the treatment after this time indicated the possibility of some organic lesion.

Results of these tests showed that the drug combination is more effective in the primary types of dysmenorrhea, rather than the organic or secondary types. It worked most effectively if taken immediately on the appearance of symptoms. Ainlay found that there was a marked effect within a few minutes after taking the medication and all patients were either completely or partially relieved. The treatment does not depress the kidneys, nor does it influence the amount or regularity of the menstrual flow.

Sometimes the dysmenorrhea is a mixture of emotional disturbance and actual pain. Under such circumstances, a combination of an analgesic and a sedative is of more value than a pain-relieving drug alone. It has been found that the use of acetylsalicylic acid or acetophenetidin with some mild sedative (e.g. a barbiturate) is usually satisfactory.[20]

On occasion phenacetin is used to lessen the toxicity of drugs with which it is combined. Such was the case in a paper published by Maloney[25] in 1940. It attempts to mitigate the toxicity of dilaudid (a derivative of morphine), yet retain its high therapeutic efficacy, he combined this agent with other drugs and chemicals. A combination of dilaudid with a barbiturate and acetophenedin proved most satisfactory, as shown by a series of tests on acute upper respiratory infections.

(*Continued on page 49*)

T.G.A. MEETING

With a record attendance of members and guests who crowded the capacity of the meeting room, the Toilet Goods' Association held its annual meeting at the Waldorf-Astoria Hotel, New York, last month. The meeting was a two-day affair which concentrated on business session in the mornings and afternoons, the only social aspect of the meeting being association luncheons.

President Herman L. Brooks, president of Coty, Inc., in his address made the following interesting statements:

"During the next year or two, so far as anyone can possibly predict, it will be far easier to sell cosmetics than to find any to sell. Women will buy all you can produce and ask for more. It will not be necessary to make absurd claims to get the attention of the consumer. Just show her the bottle or jar and she'll buy it.

"Since, then, it will be wholly unnecessary for a year or two to claim miracles for your product, and since the miracle claim is not only illegal, but really very bad business, even in normal times, wouldn't this be an opportunity to clean house completely? When will the industry ever get another chance to discard ridiculous claims without the remotest chance of losing a single sale by doing it? And, remember, your board of standards is ready, willing, and anxious to help you with any housecleaning you may feel necessary.

"The work of establishing standards for raw materials has proceeded, but the number of completed specifications which we have published is not as great as had been anticipated. This is due to a number of reasons, such as greater emphasis on other matters of more immediate importance, the fact that the substances under discussion such as beeswax and talc are far more difficult to standardize than were some of those considered earlier, and finally, the necessity of giving careful consideration to some very satisfactory new materials, such as domestic talcs, so that they might not be excluded by too rigid specifications.

"One phase of our activities arising out of the emergency should, however, be mentioned in this report. That is the study of substitute materials for those required for war purposes and for those made unavoidably scarce because of wartime dislocations of commerce. This work was started months ago and a steadily increasing amount of time and effort has been put into it.

"It is hardly necessary to stress the importance of this work. While in general cosmetics use few critical materials in their manufacture, considerable quantities of a few of them, notably metals, have been used in packaging. For the purposes for which these materials have been used, substitutes or alternate materials have had to be developed. Again the scientific advisory committee has shown its great value to the industry because its members, through knowledge and experience in production, have been able to make a large number of most valuable suggestions both in formulation and in packaging. This work is continuing and will continue until the usual materials are again freely available in a free world.

"It is my firm belief that some of this work will be reflected in permanent benefits and improvements in the industry. New developments in packaging and the revision of our formulas, while forced upon us, may well be found to have elements of permanent merit, which will be reflected in better and more attractive products and greater sales when the war is over.

"Finally, I should like to leave with you two or three recommendations which I urge upon your consideration as strongly as possible.

"First:—Do not let your research program falter during the emergency. Maintain individual research and cooperate with your board of standards in the growing program in which it is engaged. Look forward to the expansion of that program many fold in the years to come. Whatever is spent will be repaid many times over.

"Second:—In your present enforced program of substitution, simplification and elimination of dead wood,

(*Continued on page 43*)

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Joseph Keho, Dorothy Gray, Ltd., New York.

L. E. Lisner, Vensome Sales Corp., New York.

E. P. Matthiessen, Nyal, Company, Detroit.

D. H. McConnell, Allied Products, Inc., New York.

C. A. Pennock, Hudnut Sales Co., Inc., New York.

A.P.M.A. MEETING

THE American Pharmaceutical Manufacturers Association meeting held at Virginia Hot Springs last month was presided over by Secretary S. Barksdale Penick Jr., due to President Bordner F. Ascher now being in the U. S. Army. Therefore Mr. Penick presented the opening address on the situation in which the industry finds itself. Excerpts from Mr. Penick's address:

"Taxes are very stiff now; they will be stiffer. No one can complain, because high taxation is essential in this war period. But the high rate of taxes will impose hardship and strain on hitherto successful business enterprises. Careful thought should be given to how such strain can be modified to safeguard continued operation of the business.

"Taxes will take a large proportion of liquid cash assets, which may result in financial embarrassment, at the worst, or in such severe economies as to be harmful to the conduct of a company. Many industrial enterprises, recognizing the situation, have turned to the banks for assistance. Not only are interest rates moderate but most financial institutions today will arrange financing for established companies on the basis of five- or ten-year periods.

"A relatively new banking device is that of establishing credit and charging only a nominal rate until the customer actually uses the funds. Thus, at low expense, an individual enterprise has the security that liquid funds will be available if needed. In recent weeks, even the great companies, such as Chrysler and Union Carbide, have made such arrangements. These facilities are available likewise to smaller but soundly established companies and they should be investigated while the opportunity remains.

"Not only will your taxes be high, but tax enforcement will be increasingly rigorous. Internal revenue agents are closely inspecting tax returns to close what the treasury regards as loopholes. Capital expenditures are scrutinized; even such items as moving expenses cannot be regarded as ordinary expense—but must be distributed over the terms of the lease or over a reasonable period. Salaries are subject to minute examination. Regular salary payments to anyone not actively employed in the firm are suspect.

"You will hear it repeatedly said that a labor scarcity is impending and will become increasingly severe. Only an unexpected early ending of the war can prevent this shortage.

"Government officials and industry itself have repeatedly emphasized the need of training more women. All labor requirements should be carefully weighed now to see where such replacements can be made. It is interesting to note that both in factory and in office many firms are giving preference today to married women. This reversal of normal procedure is based on sound reasoning. When the war is over, we are obligated to reoffer equivalent positions to men who have gone into the service, and it is logical to expect that it will involve less of a hardship for married women to return to their homes than any other class of available personnel.

"Our industry is fortunate in many ways. We are engaged in an essential public service—that of ministering to the health of our armed forces, our countrymen, and our allied nations. With six months of war behind us, our industry has not failed in its duty to take care of the military and civilian requirements to the full. Our capacity to produce medicinals and pharmaceuticals has not yet been reached and we stand prepared for whatever increasing needs may come.

"If we should not win this war, the question of a closed shop, the question of free enterprise, the question of liberty itself, will be academic. We are engaged in a war of survival in which we cannot fail. Our government is a democratic government elected by the people in the democratic way. Our government has our full confidence and unstinted support—our all-out confidence and support—that will bring victory.

"There should be, and there can be, only one principle to guide us, and that is that no sacrifice is too great, no problem too difficult, no hardship too severe. The American people are compiling a magnificent

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Clarence W. Warner
Maltbie Chemical Company, Newark, N. J.

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Directors

Dr. E. C. Merrill, United Drug Company, Boston.

S. Barksdale Penick Jr., S. B. Penick & Co., New York.

F. A. Rostofer, Columbus Pharmacal Company, Columbus, O.

CLARENCE W. WARNER

record. Industry is playing its part fully, even spectacularly. We in the drug industry are proud to do our part. Like every other American, we are in for the duration.

"The war will be won!"

At the second session, Fred J. Stock, of the Health Supplies Branch of WPB, spoke on the Production Requirements Plan as follows:

"Industries under order P-29, the health supplies rating plan which will expire June 30, have been cleared to operate under PRP.

"In this group of industries are the producers of medicinal chemicals, producers of biologicals and manufacturers of sterile solutions.

"Present forms used by PRP are inadequate for the medicinal chemicals and biologicals manufacturers and certainly would be inadequate for the pharmaceutical manufacturers. We, therefore, are preparing and have permission to use a special set of forms for medicinal chemicals and biologicals under PRP. These new special forms will show how the raw materials requested will be used by the two industries mentioned. Another form will be added which will show the amount of each finished medicinal chemical. In this way, the health supplies branch will know the production of the medicinal chemicals to be used by the pharmaceutical industry.

"PRP is mandatory for the third quarter for the steel-consuming industries only. In this connection, any pharmaceutical company which uses in one quarter more than $5,000 worth of metals as bars, rods, sheets, and the like, for maintenance and repair, will come under PRP.

"Since the pharmaceutical industry will not be under PRP, your natural question will be: "What assistance will be available to the pharmaceutical industry?"

"The industry will continue to be able to use PD-1-a's for certain materials, continue to get supplies from the medicinal chemicals producers without priorities, and will receive many materials by allocation.

"Capital equipment will be obtained by PD-1-a's and maintenance and repair will continue under the maintenance and repair order, if using less than $5,000 a quarter.

"The greatest problem facing the health supplies branch is that of getting an accurate picture of total requirements. To get an overall picture of the requirements of the pharmaceutical and proprietary companies, we have developed a reporting form which will be sent to the entire industry. This report will give us the total use of all materials on a selected list showing quantities used in the first quarter of 1942 and the estimated requirements for the third quarter, and also inventories on hand. The reporting form will show, too, how the materials are used and will show what given quantity of material goes into various finished products. These reports will be tabulated so that we can ascertain the total requirements for the industry of a given list of material for the third quarter.

"The total figures thus obtained will be most helpful to the War Production Board in that we will be able to state total requirements of a particular material for health supplies. The value of this information lies:—

"(1) In the case of medicinal chemicals, we can then balance the production by the medicinal chemicals producers with the requirements of the pharmaceutical industry and regulate production accordingly.

"(2) Many materials used by the pharmaceutical industry are controlled by the chemical branch and other materials sections. If we know the total requirements, we can definitely state them. This information will be of utmost value to the various branches.

"(3) Allocations are approaching rapidly. The total requirements plus the varying uses to which the material is put is essential to intelligent allocation.

"With this information, it will be possible for the War Production Board to protect the essential needs.

"I am convinced that the plan outlined is a sound approach to a complex problem. Your industry has given splendid cooperation to our branch and has met the responsibility of supplying the urgent requirements of the army, the navy, lend-lease, and friendly nations to the South and throughout the world.

"I know that you will give up any product if the material is needed for more essential war purposes. You have shown that spirit in the case of quinine and agar. We, on the other hand, have endeavored to get the production to meet our requirements of essential drugs and to treat the entire industry on a sound equal basis.

"With your continued cooperation, we will meet with the challenge of being the 'drug store of the democracies.' "

Speakers from the various industries which supply the pharmaceutical manufacturers with their raw materials and packaging supplies reported to the association on conditions surrounding their products. This session was opened with talks by Dr. Maurice I. Smith, of the National Institute of Health, Fred J. Stock, of the Health Supplies Branch of WPB, and Dr. E. C. Merrill, of the United Drug Company. John A. Garvin, of Merck & Co., reported on fine chemicals; Joseph A. Huisking, of Fritzsche Brothers, and Percy C. Magnus, of Magnus, Mabee, & Reynard, reported on essential oils; C. S. Curtis, of Wilson Laboratories, reported on glandular products; John W. Clissord, of Standard Brands, reported on certain natural vitamins. This session was under the chairmanship of Hugh Craig, of the *Oil, Paint and Drug Reporter*.

T.G.A. Meeting

(*Continued from page 38*)

consider carefully whether much of it cannot be permanent, leading to a sounder and better industry and a sounder and better individual company operation."

Hugo Mock, Counsel for the association, had the following to say on vitamins in cosmetics:

"The question of the use of vitamins in cosmetics applied externally, has, in my opinion, not been finally settled. Two cases in which the advertising claims for such vitamins were enjoined by the Federal Trade Commission are on appeal to the circuit court of appeals, and I assume will be decided in the Fall.

"In the meantime, there have been reports emanating out of Boston that the external application of vitamin C promotes the healing of wounds and will greatly speed up skin healing. There has been a tendency for a long time on the part of the Food and Drug Administration and the Federal Trade Commission to object to any advertising claims for the action of cosmetics applied externally which go beyond one might say visual or tinctorial effects.

"It seems to be the underlying theory of these governmental bodies that the effect of cosmetics is purely two dimensional, that is, surface phenomena purely, and does not affect the structure of the skin in any way. It is for these reasons that these claims of the effect of vitamins on the skin are very important, and while manufacturers should at all times be meticulously accurate in describing the effect of cosmetics, they should at the same time not feel that all future improvement is impossible and that continued research will not bring decided improvements in these products.

"If the action of cold creams and other creams and cosmetics is purely a surface phenomenom we ought to know that, but if it is something more than that, the manufacturers should be allowed to say so."

Speaking as an individual manufacturer and not as the president of the association, had the following to say with reference to the contemplated WPB cosmetic restriction order:

"Our industry is not a frivolous one. While it may cater to the whims and fancies of women, and men, as well, though I should add that I am referring to shaving cream and kindred articles, for I don't want to be misunderstood, it is fully aware of its responsibilities and duties to our country and government, and the need for all business to make greater sacrifices in order to hasten the winning of the war. As a group, we yield to no other group in the desire to win the war. We shall make every sacrifice, voluntarily or otherwise, that will help speed the day of victory. We shall not be found wanting.

"However, I cannot see why it should be construed as lack of patriotism if I voice my objections and disagree with regulations that I cannot understand, and which I do not think will help the war effort. This leads me to the bold and straightforward question:—

If nothing that we can obtain for use in our business is needed for the war effort, why must we have a limitations order at all?

"Many have already been imposed upon us. When we know that these are necessary, we do not disagree, but heartily approve. But what I cannot understand, frankly, is why we may be told that we must limit ourselves in certain articles when there is a surplus supply of the products and materials that go into their making?

"While there is a shortage of labor of certain types, ours, apparently, is not in this category. If and when it is, our personnel will want to do its part, and if it does not do so voluntarily, our government will undoubtedly conscript it. In the meantime, we should not like to dismiss thousands of employees who may not find any new jobs quickly, or at all, which would be the result of a serious limitations of production order.

"We are aware of the fact that there are transportation difficulties. If we cannot use one kind of carrier, we shall find other means of shipping our goods. If delays occur, because of a greater need, we shall suffer them silently. In Great Britain where shipping space, particularly on boats, is a far greater problem than the railroad situation here, the government of that country still permits the exportation of cosmetics to the colonies.

"Can it be that industry of our type should curtail its activities in order to help the public psychology? Is it because other industries have, for various reasons, been put out of business and no longer enjoy their usual civilian existence, that a limitations order on us will make them feel better?

"I doubt that the consuming public will resent seeing certain articles in the stores even though they may be made of some materials about which there has been some publicity, for I believe that today the public is fully aware of priorities and what they mean, and when a consumer sees something for sale, he or she assumes that it has a right to be there.

"Furthermore, with more and more women in industry than ever before, the need and demand for products to help them maintain their personal appearance is greater than ever. This new strenuous business life will leave a mark on their appearance unless greater care and attention than ever before is exercised.

"The impression seems to prevail that our industry has had a spectacular increase in sales during the past few months. That, I can assure you, has not been the case, but it has continued the steady progress which it has been making over the past decade or so.

"When I finish reviewing in my mind the reasons I have just stated, I say to myself, arguments notwithstanding, you will still get a limitations order. If this is so, then I should like to offer a suggestion to the War Production Board that it may entertain:—

"It has been reported that the contemplated order will classify articles into various groups, and the limitation therefore will, in a sense, be item by item. Why couldn't it be put on a dollar volume done in a recent base period? To put a limitation on every product will, in the case of companies with extensive lines, neces-

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COSMETIC STOCKINGS

By JOSEPH KALISH

In our first article on the subject of cosmetic stockings last September, we expressed the opinion that cosmetic manufacturers had unnecessarily neglected the field of leg make-up. Cosmetic manufacturers have by now obviously reached the same conclusion, to judge from the great number of such products now being offered, as well as the many inquiries for formulas reaching this office.

Leg make-up is distinguished from ordinary facial make-up in that the latter usually is formulated to improve the appearance of the skin yet keep it looking natural, while the former strives to attain an artificial, textile-like texture. The major requirements for a cosmetic stocking preparation are the following: its color must be one of the popular style shades of the moment; it should impart some semblance of texture to the leg surface; it should not be too difficult to apply smoothly and uniformly; it must adhere to such an extent that color will not come off on clothing nor be removed by water alone.

Probably the simplest type of cosmetic stocking is an aqueous dye solution. A combination of acceptable dyes are dissolved in water and the solution applied to the legs. The skin is stained and the color can be removed by soap and water, but not easily by water alone. A certain amount of alcohol is usually included in the solution to make drying more rapid. Some glycerin, sorbitol, propylene glycol, or pentanediol should be included for the emollient effect upon the skin as well as to impart a slight luster. Finally, a little wetting agent must be present to assure even deposition of color. Preparations of this type have one serious disadvantage, namely, they do not adequately hide the natural texture of the skin and blemishes remain visible.

Dye	2.0
Wetting agent	1.0
Glycerin	4.0
Alcohol	10.0
Water	83.0

Liquid powder types of cosmetic stockings are by all odds the most popular, and, in our opinion, the most generally satisfactory. They contain about 20 per cent. of pigment mixture suspended in a liquid medium, usually with some gum or resinous material to act as a binder.

Color is given by insoluble pigments of the harmless earth color group and lakes made from certified dyes. These must be extended by the addition of white materials with a certain amount of covering power. This covering power is necessary to hide minor blemishes and irregularities in skin texture, yet a heavily powdered appearance, from too much covering power, must not result. Zinc oxide and titanium dioxide, used sparingly, will give desired opacity. Precipitated chalk, because of its smaller covering power, may be used in relatively larger proportions. Zinc stearate is useful in assisting adhesion. Colloidal clay, and especially bentonite, assist in keeping the pigments in suspension for a longer time, making application that much easier. Talc will supply a certain amount of luster to the mixture, permitting better simulation of silk texture.

Water is the primary suspending medium for the powder mixture, but it should be modified by the addition of some alcohol to facilitate drying. Furthermore, the addition of a little glycerin or other humectant liquid serves to prevent the powder from flaking off the legs. Again, the addition of a little wetting agent assists in assuring uniform spread of color on application. Finally, a fixative of some type must be added to make the powder adhere firmly to the skin surface. Gums must be used cautiously, since they may cause the powder to cake into a hard mass at the bottom of the bottle. A very low viscosity methyl cellulose should be useful for this purpose. More valuable, as being less water-soluble, are certain substances, such as alkaline shellac, borate esters including those of the glycols and sorbitol, dispersed casein, etc. The use of latex, which should be very useful, must be deferred until the last Jap in the Indies has been slaughtered.

In addition to the insoluble pigments, it seems a good idea to add a very small amount of dye of the same shade, soluble in the medium used. This will not only tint the liquid, but will also very slightly stain the skin. In this way, an effect similar to that in lipsticks will result, where top color from the pigments may eventually be rubbed off, with the undertone of dye still imparting color.

Precipitated chalk	10.0
Talc	5.0
Titanium dioxide	3.0
Bentonite	2.0
Alcohol	8.0
Glycerin	3.0
Wetting agent	0.5
Methyl cellulose	0.5
Water	68.0
Dye and Pigment	

Colloidal clay	10.0
Precipitated chalk	10.0
Talc	5.0
Alcohol	5.0
Sorbitol	5.0
Soluble casein	3.0
Water	62.0
Dye and Pigment	

The soluble casein is made by dispersing one pound of casein in one gallon of water with the help of 2 ounces of triethanolamine.

Not many cream cosmetic stockings have made their appearance to date, although the product has certain apparent advantages. Creams can be readily smoothed out to make a uniform coating that will be very adherent. The best type of base to use is a vanishing cream containing adequate pigment to do a good covering and tinting job. For ease in spreading, the cream should be rather soft, and to prevent rolling, enough humectant must be present. A very little oil will add to the luster. Talc and titanium dioxide, both inert, are the most appropriate pigments and extenders to use along with the coloring material. For color, dye may be used, but insoluble pigments will generally prove to be more satisfactory.

Glyceryl monostearate	15.0
Pentanediol	5.0
Mineral oil	2.0
Titanium dioxide	3.0
Talc	7.0
Pigment	4.0
Water	64.0

Stearic acid	18.0
Spermaceti	3.0
Sorbitol	6.0
Mineral oil	1.0
Amino glycol	3.0
Zinc stearate	8.0
Titanium dioxide	3.0
Pigment	3.0
Water	55.0

Finally, leg make-up has been made available in stick form. A composition of this type usually consists of a wax-oil mixture along with a large amount of pigment. It has the advantage of very great ease of application and very considerable staying powers, so that even swimming will not readily remove the preparation. The base mixture must not have too high a melting point, or it will not rub out easily, yet must melt low enough to spread well. The base will provide the texture effect, so that pigments are necessary only for color and hiding power. In this, as in all other mixtures, pigments must be milled very fine so that no color streaks will show.

Petrolatum	45.0
Ozokerite	15.0
Soft amorphous wax	10.0
Deodorized cocoa butter	5.0
Titanium dioxide	20.0
Color	5.0

SUPPLY PROBLEMS IN DRUG MANUFACTURE

By DR. E. C. MERRILL
Assistant Vice-president, United Drug Company, Boston

We will discuss some of the problems created for us by war's influence and what is being done to solve them so far as our industry is concerned. Also following the principle of cause and effect, we will endeavor to cover some of the trends that become increasingly obvious with the lapse of time.

We all know what generally happens as a material gets tight. It gets progressively tighter "inflation in the reverse" and ultimately becomes the subject of limiting orders. That impels "conservation," a word that now becomes a major slogan for all concerned, but one that heretofore has been so little known and practiced.

And so we have seen over the five months' period progressive tightening in the field of crude materials for use in pharmaceutical manufacture and an increasing tempo of accelerated shortages. Before Pearl Harbor, there were some fifty to sixty items that were getting tight—today that list runs nearer two hundred as affecting the manufacture of pharmaceutical and medicinal products.

And so, all concerned in this industry are finding to a greater degree complications affecting their normal production—a search for alternate materials—a search for alternate formulation—and an awakening to the fact that the trend of war events and the demands for war materials hold more problems in the future that must necessarily compel the greatest effort and ingenuity to solve.

Illustrative of some of the more important materials which have become tight we list herewith—

Agar
Albumin
Acetone
Acetic Acid
Ascorbic Acid
Citric Acid
The Salicylates
The Benzyl Esters
Benzal Alcohol
Ethyl Alcohol
Isopropyl Alcohol
Methyl Alcohol
Aminophylline
Ammonia and its Salts
Atropine
Belladonna
Benzaldehyde
Brucine
Caffeine
Chlorine
Chlorinated Hydrocarbons
Hypochlorites
Chloroform
Chlorbutanol
Creosote
Ethyl Cellulose
Eucalyptol
Formaldehyde
Glycerine
Guaiacol
Gum Arabic
Hexamethylenetetramine
Hyoscine
Henbane
Lanolin
Licorice
Liver Extract
Menthol
Mercury and its Salts
Magnesium and its Salts
Nicotinamide
Oil, Almond
Salts derived from Metal
Oil Cardamon
Oil Cassia
Oil Castor
Oil Cinnamon
Oil Cloves
Oil Citronella
Oil Olive
Oil Pine Needles
Phenol and its derivatives
Potassium Salts
Sodium Benzoate and Perborate
Sugar
Theobromine
Thymol
Triethanolamine
Vitamin A
Zinc Oxide

The foregoing are only a part of a considerably larger number of items listed but represent materials that are now tight and are problems for finding ways and means of solution in the respective items of manufacture calling for their use.

Similarly, the War Production Board have published successive lists of materials that are in varying degrees of tightness as required for War Effort. Such lists do not necessarily cover a great many items employed in pharmacy since they may not be directly required for War Effort; yet, shortages of materials required for pharmaceutical manufacturer and those especially dependent upon importation into the United States have shown the greater tendency to shortage.

And, similarly, we see to a large degree those major shortages of rubber, tin, sugar, alcohol, glycerine, and quinine all dependent upon the factor of transportation from foreign sources.

Simultaneously, has grown the demand created by direct War Effort and Lease-Lend to our Allies. Little wonder that there should be shortages!

Associated with a drug manufacturing firm making a wide variety of drugs and pharmaceuticals, Dr. Merrill has been faced with most of the raw material and supply shortages that have affected this industry. During the past year, Dr. Merrill has spoken before many associations on these problems. This paper was delivered before the American Pharmaceutical Manufacturers Association last month.

And so, in the pharmaceutical field we find it necessary to consider alternate materials. Even in the field of official drugs such as are recognized in the United States Pharmacopoeia and the National Formulary—we are now seeing emergency revisions of the existing standards in both formulation and alternate materials.

Such precedent establishes definitely the far-reaching authority of the War Production Board at this time. Consequently, we have seen permissive changes in these U. S. Pharmacopoeial standards such as may be noted in the alternate use of cedar leaf oil for oil of lavender in tincture of green soap; specifications for a new oil known as Persic oil derived from apricot and peach kernel to serve as an alternate for olive oil and, more recently, have issued interin revisions to conserve mercury by amending existing formulas for ammoniated mercury ointment and ointment of mercury 30%—to contain, in the case of ammoniated mercury, five per cent. instead of ten and in mercury ointment, ten per cent. instead of thirty.

Similarly, the National Formulary Committee has accomplished revisions of their official standards where materials have become tight to a point of non-procurability; notably, the providing of stramonium extract in lieu of belladonna extract in compound of pills of cascara.

It goes without saying that these changes will be progressively accelerated with the lapse of time if official drugs are to be available—since in the case of non-availability the only choice of the manufacturer is to suspend production or put out a non-official product and label it accordingly.

Hence, the desirability for a continuing action by the official revision committees as the exigencies of the situation demand.

QUININE

The recent Quinine Order of the War Production Board restricting the use of quinine to products of an anti-malarial nature is an illustration of the sweeping character of decisions that technical men in the industry are called upon to solve; since in such instances it is desirable to consider the matter of alternate materials as well as the avoiding of such materials in formulation as may later become short and thereby create another change in formulation and labeling. The Quinine Order has directly affected some five products in the National Formulary containing quinine but which are not sufficiently medicated to produce an anti-malarial action. These products are—

Elixir of Glycerophosphate Compound
Syrup of Hypophosphite Compound
Elixir of Cinchona Alkaloids
Elixir Iron, Quinine & Strychnine
Elixir Iron, Quinine & Strychnine Phosphates

The question whether cinchonine or cinchonidine will be available in sufficient quantity to serve as alternates for quinine in the above products is doubtful. Consequently, the elimination of quinine from the above preparations will, in any event, bring about a change in the nomenclature in these products where the word "quinine" is present in the title.

No one doubts the wisdom of conserving quinine and tota-quinine in sufficient quantities for the Armed Forces. Nevertheless the measure will call for the overhauling of numerous formulae and the discarding of the old labels.

GLYCERINE

The Glycerine Order M-58—limiting the use of this material in numerous elixirs, dentifrices, cosmetic products, and pharmaceutical preparations to 70% of previous production undoubtedly covers one of the broadest fields of products—either limiting of production in proportion to the existing order or the finding of alternate materials such as may be suggested in the form of glucose, invert sugar, sorbitol or propylene glycol. Due, however, to the tightness of some of the above alternate materials, it would appear doubtful if complete solution of the problem can be afforded by use of alternates in all cases. Such limiting order also raises the fine point as to whether Official Revision Commit-

tees of the N.F. and U.S.P. should not also consider revision of official products looking to such relief. It is understood that there are, at least, one-hundred and twenty-five preparations in the National Formulary alone that use glycerine.

Another possible alternate material for glycerine is suggested in the use of sodium lactate. The dairy by-product already has gained some status in the textile world as an alternate for glycerine.

ALCOHOL

And so, in the case of alcohol due to war demands the estimated production of 300-million wine gallons became the goal for the year 1942—some two-hundred million gallons over and above normal production. But in the light of estimates now at hand the goal for 1943 is set at 476-million-gallons which ups the 1942 program by approximately another two-hundred million gallons —providing in this excess a basis for butadiene production for synthetic rubber. Thus we see alcohol in role of a key material to solve our rubber problem—for smokeless powder and for a host of everyday applications in industry. The question, therefore, comes up as to what effect such a demand will have on the pharmaceutical industry—and the availability of alcohol for medicinal and pharmaceutical use.

It would appear on the surface that such extraordinary demand must necessarily be reflected in further tightening of the use of alcohol in products regarded as non-essential to war effort. We have already seen an effort to reduce where practicable, alcohol intended for certain classes of products particularly those of an external nature, and we see some trend toward the reduction of alcoholic content of various pharmaceutical products where manufacturers can satisfy themselves that such procedure is feasible.

It would further seem logical to assume that the increased demand on alcohol should be reflected in the supplies of sugar available since sugar is the principal source of raw material for alcohol.

In the light of these growing scarcities one can only conclude that a trend which has been in progress for some years will be accelerated further away from liquids to equivalent medication in dry form; namely, tablets, capsules, dry powder, and granules.

We must not overlook the fact that the growing problem of transportation imposes increasing burdens with the growth of war effort and production to the point that limiting orders on numerous classes of materials for shipment are issuing nearly every day; and we may conceive of the possibility of limitations on certain classes of liquid products as being unnecessarily heavy and expensive in the use of critical materials.

BOTANICAL DRUGS

In this field we learn that substantial efforts are planned for the cultivation of belladonna, stramonium, digitalis and sage during the coming year and that much credit is due to one of our members, S. B. Penick & Co., for sponsoring the development of domestic botanical drugs. This brings up the question for the future of the drug industry as to the continuance of further developments in this direction in the interest of maintaining the support of an industry that can be made forever ours.

PHENOL

Of special significance is the fact that this material is now found on List No. 1 of the War Production Board. This would imply that many derivatives dependent upon this source as a key material will eventually reflect the apparent shortage in further limiting orders.

ESSENTIAL OILS

Comprising a list too long to mention at this time—those essential oils formerly imported from European, Mediterranean, East Indian and numerous other points, have dwindled in availability to a degree where consideration is being given to modification of formulation calling for their use in medicinal and pharmaceutical products.

CHLORINE

Chlorine As A Key Material—reflects its shortage in numerous chlorine compounds, hypochlorites and chlorinated hydrocarbon solvent materials, ammonium and its salts, potassium and its salts, the benzyl esters and derivatives—all feature an increasing tightness.

VITAMIN A

A tightening in the availability of this important vitamin factor as derived from natural fish liver oils has developed over a period of many months and to a point where conservation orders have limited the potency for the ordinary prophylactic dose to not over five-thousand units per tablet or per capsule. Consequently, we see in the U.S.P. Revision Notice of April 20, 1942—changes made in the standards for oleum vitamin A—oleum vitamin A capsules—halibut liver oil capsules—bringing the standards for these products in harmony with the above War Production Board Order.

More recently we note a gain in procurement of vitamin A from fish liver oils, from shark liver oil and other species—in lower California and Mexican Coast in Pacific waters. It is not beyond the limit of expectation to anticipate that the synthesis of this valuable factor may be complete and available for commercial production within the near future. The value of such an accomplishment would complete the group of synthetic vitamin products that are of great importance to our position in the supply of these important factors to ourselves and our Allies in the prosecution of war effort.

VITAMIN B_1 and B_2

Production of both of these important synthetic vitamin factors has grown apace with the steadily increasing demand and the requirements for same in food enrichment and lease-lend arrangements. Much credit is due to the American manufacturers who have found ways and means of expanding their production. Sim-

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SYMBOLS ON ALL ORDERS

WPB has issued Priorities Regulation No. 10 which establishes an allocation classification system designed to identify and keep track of all raw materials and their uses. All orders or contracts placed after June 30 must bear an appropriate symbol which identifies the use to which the product will be finally put. Also all orders placed prior to June 30 and calling for delivery after July 31 must bear a symbol.

All raw materials for use in the manufacture of drugs and cosmetics must bear the symbol 12.20. Materials for maintenance, repair, and operating supplies must bear the symbol 22.00. Army and Navy orders for medical supplies must bear the symbol 6.40. Army and Navy orders for cosmetics must bear the symbol 6.90.

In addition to the above symbols, further symbols must be given indicating distribution of the products as follows: Army, USA; Navy, USN; Lend-Lease, LL; Foreign Purchasers, FP; Domestic Purchasers, DP.

T.G.A. Meeting

(Continued from page 43)

sitate a costly statistical system per item and per customer. This, from the standpoint of the government, may create difficult and complicated administration and and supervision problems.

"Furthermore, the dollar volume would allow many manufacturers to maintain the permissible pegged volume through the switching from one article to another, as supplies become greater or less. Many companies are already suffering from a reduction in sales due to existing shortages and limitations. Thus, if materials were available for something else, they could concentrate on them, and offset the loss of business on the others.

"It seems to me that if, through the ingenious employment of substitute materials, we can maintain a certain volume of business, we should be applauded, and not prohibited from doing so, for it would further permit our industry to pay substantial taxes, for its retail and corporate taxes together amount to many millions of dollars. It could employ many tens of thousands of workers until they are required elsewhere. It also contributes to the livelihood of thousands of persons employed by companies making its supplies, and magazines and newspapers who print its advertising. If we can continue to make these contributions to our government and wage earners, without interfering with anything else, isn't this helping the war effort, at least in some measure?

"We ask for no special privileges or special dispensations. We are ready to do anything that is absolutely necessary for the war effort, or give anything needed by it, but we do not think that playing a negative role will accomplish anything.

"It has been suggested that anyone may write to the War Production Board in reference to the expected order. If you intend to do so, let me caution you not to just write and say, "You do this to us." Washington officials are doing the best they can with the means they have. They have a big job on their hands, and we are more than sympathetic and ready to be cooperative. So if you do write, give your reasons why, and make them constructive.

"I can assure these officials that our sole aim is to be of assistance for helping to win the war is a responsibility and duty we do not intend to dodge, but, on the contrary, to aid at every turn."

Acetophenetidin

(Continued from page 37)

Acetophenetidin-containing antipyretic mixtures still find use in modern therapy. One suggested prescription[26] for reducing fever consists of:

Salol (phenyl salicylate)	4 Gm.
Acetophenetidin	4 Gm.
Quinine sulfate	4 Gm.

Mix and divide into 24 capsules.

Acetophenetidin, when properly administered constitutes a most valuable drug; one of the most important available to medicine. However, its abuse can make it a serious menace to the health of those who are not aware of its limitations and dangers. It is a safe and effective drug when correctly employed. No more can be said of any therapeutic agent.

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Carrying "First Aid" to the far corners of the world . . .

Shipping medical supplies safely across vast and hazardous stretches of the world is a difficult problem. These sturdy, compact bottles containing MERCUROCHROME (DIBROM-OXYMERCURI-FLUORESCEIN-SODIUM, HW&D) used as a general antiseptic for First Aid, are Swindell bottles, developed to resist the rigors of long shipments. We are proud of our part in helping Hynson, Westcott and Dunning package their fine product so effectively.

SWINDELL BROS., BALTIMORE, MD. • 200 FIFTH AVENUE, NEW YORK • ROBERTO ORTIZ — HAVANA, CUBA

When you think of bottles, think of

Swindell

MERCHANDISING NEWS and PACKAGING NOTES

COSMETIC RESTRICTIONS: The rumors and reports about production restrictions on cosmetics continue to blow hot and blow cold. As this is written an announcement issued by the Toiletries and Cosmetics branch of the W.P.B. under date of June 25 would seem to indicate that the proposed order, originally rumored to be due soon after July 1, will not be as stiff as was generally expected just a week previous. At that time it was generally assumed that the production-limitation order would use production figures of some previous period as a base. It was known that the W.P.B. had been making a study of cosmetics with a view to classifying them as indispensable, desirable, and superfluous, and many believed that the limitation would be based upon some such classification. This feeling brought forth a suggestion that limitation be based instead upon dollar volume thus permitting greater flexibility and creating less hardship.

Then, only some ten days later, in the first statement authorized by W.P.B., it seemed quite likely that the order, when it came, would not be nearly so drastic as had been previously anticipated. This preview of the order seemed to indicate quite clearly that the limitation would take the form of curtailing the number of shades, odors and package sizes. As reported in the N. Y. *Times* the story was that, "Manufacturers of most types of cosmetics will be limited to two or three varieties for each line of products.

"The limitation order, now being drawn up by W.P.B., is likely to be issued in a few weeks," the *Times* story continued.

"A spokesman for the division said that variations in shade and odor for such cosmetics as face powder, hair dye, eyeshadow, lipstick and bath salts would be more numerous than those permitted 'for the largest group' of restricted articles. It was implied that the latter group, where only two or three different shades or odors will be permitted each manufacturer, will include fingernail polish, cologne water, liquid stockings, mascara and hand and face lotions or creams.

"Besides these restrictions, the forthcoming order will include simplification rules for deodorants, face creams and cosmetics of all sorts. In the case of face creams, for instance, it was said that one manufacturer may now put out a dozen or more variations on the same cream base. Under the order, this number will be reduced.

"Limitations on container sizes will be included in the order because the lack of metals for closures will make it impossible for the $400,000,000 industry to maintain its present plethora of distinctive packaging."

By the time this is published the order, itself, may have been issued so that all doubts and uncertainties will have been resolved. The statement quoted above goes far towards relieving them and the industry may now settle down to doing the Christmas business upon which the success or failure of any year finally depends. For it is extremely unlikely that any further general orders will be issued until the one now in course of preparation has had at least six months or so of operation.

WAR WORKER COSMETIC MARKET: A study of the market for cosmetics in the St. Louis area since the large shift of women workers into war industries discloses an increase in the average monthly expenditure from $1.82 to $2.44, according to a survey of the St. Louis *Globe Democrat*. It also indicates that this large-scale employment in war industry is presenting increased opportunity for cosmetic sales for it was found that 51.2 per cent. reported that they needed to take more care of their hair now than before they began war work and 27.9 per cent. said that their hands needed greater care for frequent washings at work resulted in rough, dry or red skin. However, only 23 per cent. use any special soap to correct this condition.

Of the more than 400 girl workers questioned, it was found that the majority had no fixed cosmetic purchasing habits. Brands, sizes, types, prices had all been frequently changed by 81.6 per cent. The survey further revealed that 82.9 per cent. used a deodorant, 94.2 per cent. used lipstick, 66.3 per cent. used rouge, and 61.3 per cent. used hand cream.

- More Uniform Particle Size
- Perfect Color Distribution
- Non-powdery Appearance
- Stays On
- Over 100 Shades Available

Kolmar's Face Powder produced by the original hi-air pressure method assures you of a product of exceptional elegance.

Available in bulk or packaged to your needs. We suggest you write for samples for conducting tests. We will be glad to quote you on your specific needs. Write today.

Representatives:

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Mr. Warren Curry, 3950 Club Drive, Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. F. G. Byington, 1260 N. Western Ave., Los Angeles, Cal.
Mr. Richard F. Spicker, 419 West Fifth Street, Cincinnati, Ohio

Milwaukee · Newark

COSMETIC STOCKINGS, CIRCA 1929: Our unhappy predilection for assuming, without too much research, that (1) most "new" cosmetics are not new at all; and (2) that Elizabeth Arden was probably among the first to put the "new" cosmetic on the market about ten years ago; hit us right below the knees in our "Cosmetic Stocking" piece of last month.

As William Bonyun, sales manager of Daggett & Ramsdell, points out in an interesting and amusing letter to this department, (1) Arden was not first and (2) we were wrong by about 10 years in locating the first appearance of this product. From now on, we'll just assume that any "new" cosmetic which comes up goes back to the Egyptians and then defy anybody to produce evidence to the contrary.

But here goes for Mr. Bonyun's letter with the accompanying advertisement from the Lansing (Mich.) "State Journal" of October 21, 1929 to back it up.

"In an article on page 635 of the June issue of DRUG AND COSMETIC INDUSTRY headed "Cosmetic Stockings," appears a statement "that Elizabeth Arden was probably among the first to present leg make-up." This statement is incorrect by about ten years.

"In 1927, '28, and '29, the Doraldina Company sold a Leg Make-up designated as such in three or four different shades. This product was recommended and sold as a smart cosmetic accessory to sports and beach wear. Women who wore it were considered a little daring, but, nevertheless, it was quite fashionable at that time, especially in Hollywood and on the West Coast.

"Doraldina Leg-Make-up was a companion product to "Allura," a make-up base for the face in several shades which included *Sun Tan*. Both these products were demonstrated in many of the best department stores throughout the country at that time through the medium of a very comprehensive Fashion Show which was held either in the store auditoriums or in a local theatre or town auditorium.

"To my knowledge this was the earliest and most spectacular tie-up between cosmetics on the one hand and clothes and fashion accessories on the other, and it was not until some years later that Miss Edyth Thornton McLeod toured the country with her athletic maidens in an Elizabeth Arden Cosmetic-Fashion tie-up. If Elizabeth Arden introduced leg make-up in 1937 for the first time, therefore, Doraldina's product preceded Velva Beauty Film by some ten years.

"But even before Doraldina's Allura and Leg Make-up appeared, the Aubrey Sisters in Chicago had been marketing their "Beauty Secret" for some years. This product was used for covering up blemishes not only on the face, neck, and arms, but also on the legs. In fact, Aubrey Sisters Beauty Secret was in many respects the forerunner of this type of product, of which the pan-cake make-ups constitute one of the present day manifestations.

"You may know all this and still have wished to give Miss Arden a little publicity, but I prefer to believe that either the records of DRUG AND COSMETIC INDUS-

Mme. Doraldina
Toiletries and Cosmetics Are Exclusively at Knapp's
Knapp's have the exclusive agency for Doraldina preparations in Lansing and at all times we carry a complete line of shades and beauty aids.
Facial Service in Knapp's Beauty Shop
In our Beauty Shoppe—served by specially trained beauticians you will be pleased with the facial and make-ups, suited to your particular complexion.
—And On Sale in the Toilet Section
We carry a complete stock of the Doraldina beauty preparations in our toilet goods section on the main floor. Well-trained salesgirls will assist you in selecting your shade.
Madame Doraldina
In Person at the Exposition
Again Madam Doraldina favors Lansing with a visit. This noted beauty, dancer and actress will lecture at all four performances on the "Art of Ensemble Make-up."
Assisted By the Allura Girls
Several charming Allura girls, personally trained by the Madam assist her in her demonstrations and performances.
And In Knapp's Beauty Shop Tues. and Wed. 11 to 1—Thurs. 11-5
Madam Doraldina assisted by the Allura girls will be in our Beauty Shoppe Tuesday and Wednesday from 11 to 1, and Thursday from 11 to 5 for consultations and free make-ups.
Doraldina Recommends These
Modern Beauty Articles
Let Our Beauty Shop and Toilet Section Explain the Purpose and Use of Each!
Famous "Allura" . . .
The make-up basis protects, beautifies instantly, stays on all day. It is not a mask or covering but a part of the breathing skin, in 12 shades, $1.00 and $3.00.
Dry Rouge . . .
When the Allura is dry and the powder applied, add a dash of rouge, which comes in four different shades in attractive green boxes $1.00.
"Cosmetique" . . .
Created to give your eyebrows and lashes that lovely, alluring, long, thick appearance, available in three shades, black, brown and suntan, $1.00.
Powder . . .
Doraldina's powder is exquisitely scented, fine in texture, adhering to the skin, it is protective and flattering. In 12 shades, $2.00.
Anti-Wrinkle Cream
Designed to smooth away those lines that come with the years, to correct "crow's feet" and crepey skin, mildly astringent, but very effective, $3.50.
Leg Makeup . . .
This creates the illusion of the sheerest hosiery—an illusion oft-times more glamorous than reality — in three different shades. Bottle $2.50.
Free Consultations and Make-Ups
All This Week at the Store and Exposition
Madame Doraldina, assisted by her Allura Girls will give consultations and face make-ups after the performance at the K. of C. hall and in Knapp's Beauty Shoppe, Tuesday and Wednesday, 11 to 1 and Thursday 11 to 5.
All Doraldina products are made of the purest ingredients obtainable and dedicated to all women who would have the "clock of time" stand still.

VALOR and VICTORY

THE TWO V'S

One cannot think of victory without thinking of valor at the same time.

The road to victory is paved with many trials and disappointments. The struggle ahead may be arduous and the way stubborn. The wind and the rain, the sun and the heat, the snow and the cold, all of nature's elements exact their toll, too. The difference between victory and defeat may hinge on the physical fitness of the combatants. The last ounce of energy may be needed to swing the balance in favor of our fighting men.

Good health begets courage, and courage victory.

PENNSYLVANIA GLASS PRODUCTS COMPANY

Glass Goods of the Better Kind

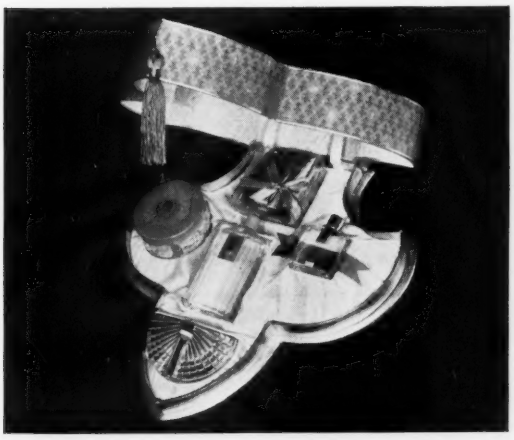
PITTSBURGH, PENNSYLVANIA, U.S.A.

TRY do not extend as far back as these events, or that your editors are too youthful to remember events B.A. (Before Arden)."

CHRISTMAS SETS: The sumptuousness of the gift packages is, at first glance, somewhat staggering. In these days of shortages and priorities it doesn't seem possible that even our versatile industry could produce such beauty and what appears to be complete lavishness. However, delving further into the packaging of these beautiful sets we find that in one case in particular, the manufacturer started out with a view to saving at least 25 per cent. of wrappings over last year, but worked at it so hard that he found he had saved 35 per cent. Yet in spite of this saving, the packages appear just as handsome as they did last year and the corners that have been cut to make the saving will certainly not be evident to the consumer. As a matter of fact, this very thing appears to worry some of the manufacturers—that the sets will appear too extravagant for the times—but this is a needless worry because there is little doubt that in times of stress such as these, family and friendship bonds are given more thought and this results in the giving of gifts to many more than in normal times. And, if the gifts can be attractively packaged without hindering the war effort, the public will be glad to buy them. As staple merchandise dwindles from the store counters, attention will be diverted to things that can be had—a toaster or radio may have been the gift last year—why not a handsome beauty set or kit this year?

Among the interesting gift sets is the Bourjois group of Evening in Paris, Mais Oui, and Skylark, all designed for beauty, utility, variety and value. Coty is offering a large collection of gift ensembles which consists of four groups, in the well-known fragrances, L'Aimant, L'Origan, "Paris" and Emeraude. Perhaps the most novel of these is one representative of the "Paris" line. It is distinctive for two reasons, because of its fleur-de-lis shape and also because it contains the "Flying Colors" triple compact.

Yardley has a new array of gifts sets containing various combinations of Bond Street perfume and toilet



preparations. Some of the boxes feature the familiar red and gold scroll motif on an ivory background; others appear in newly styled boxes in pink and decorated with a green and gold Pegasus design. Houbigant has announced the completion of its Christmas line. Typical of the packaging motif is the deep pastel-blue background with ornamentation design in pink and gold. Deft use of ribbon bows and laces achieves dramatic feminine interest. Incidentally, Houbigant is one of the few still using bows, most of the bows have disappeared from the gift packages.

CELLOPHANE LIMITATION: That famous cellophane limitation order, L-20 is in again. This time it has been amended. As the W.P.B. so coyly puts it "the amendment rewrites the entire order, consolidates previous amendments, clarifies certain ambiguous provisions of the original order, and adds new restrictions to the use of cellophane." This takes thousands of words, reams of paper and untold man-hours of labor but what it comes down to is this. Products covered by the order are now all those of .003 inch thickness or less. Cellulose caps or bands of any gauge are now added to the definition of products covered by the order. No person who has been using a gauge lower than .003 inches may purchase material of that gauge or greater as substitute for the prohibited thinner gauges.

THE COSMETIC TREND. Buyers have started their cosmetic Christmas shopping earlier this year than usual. One reason is that thousands, possibly millions of young American men will be abroad this Christmas and that gifts for them must leave these shores by Mid October if not earlier. Cosmetics are expected to rank high and stores make ample preparation by ordering army and navy kits. Soaps, eye shadow (to cut eye glare), creams, foot remedies, talcum, deodorants, hand lotions will be pushed for the soldier gift trade and, remembering the first world war, insect lotions and powders.

Interest just now centers on the question to what extent refills can be introduced into the Christmas

New Target for Industry:

More Dollars Per Man Per Month in the PAY-ROLL WAR SAVINGS PLAN

TO WIN THIS WAR, more and more billions are needed and needed fast—AT LEAST A BILLION DOLLARS A MONTH IN WAR BOND SALES ALONE!

This means a *minimum* of 10 percent of the gross pay roll invested in War Bonds in every plant, office, firm, and factory in the land.

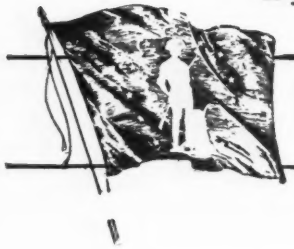
Best and quickest way to raise this money—and at the same time to "brake" inflation—is by stepping up the Pay-Roll War Savings Plan, having every company offer every worker the chance to buy MORE BONDS.

Truly, in this War of Survival, VICTORY BEGINS AT THE PAY WINDOW.

If your firm has already installed the Pay-Roll War Savings Plan, *now is the time—*

1. To secure wider employee participation.
2. *To encourage employees to increase the amount of their allotments for Bonds, to an average of at least 10 percent of earnings—because "token" payments will not win this war any more than "token" resistance will keep the enemy from our shores, our homes.*

If your firm has not already installed the Pay-Roll War Savings Plan, *now is the time to do so.* For full details, plus samples of result-getting literature and promotional helps, write, wire, or phone: War Savings Staff, Section E, Treasury Department, 709 Twelfth Street NW., Washington, D. C.



U. S. War Savings Bonds

This space is a contribution to America's all-out war program by

DRUG & COSMETIC INDUSTRY

Form No. WSS-BP-3

16—28448-1 U. S. GOVERNMENT PRINTING OFFICE

trade. Some stores think that they are a coming article and that Christmas is as good a time as any to popularize them with customers. Wanted are sets of refills for lipsticks to sell (several in one carton), complete refill packages of several items in cream, powders, etc. Many women have bought already permanent containers for the dressing table, handbag or travel kits and refills might be just the gift for them.

Packaging is proving less of a worry than had been expected. Buyers believe that they have enough metal packages for vanities, etc. to see them over Christmas and that the demand for the novelty items, (synthetics, wood and paper board) will be large enough to take care of the gift appeal of the counters.

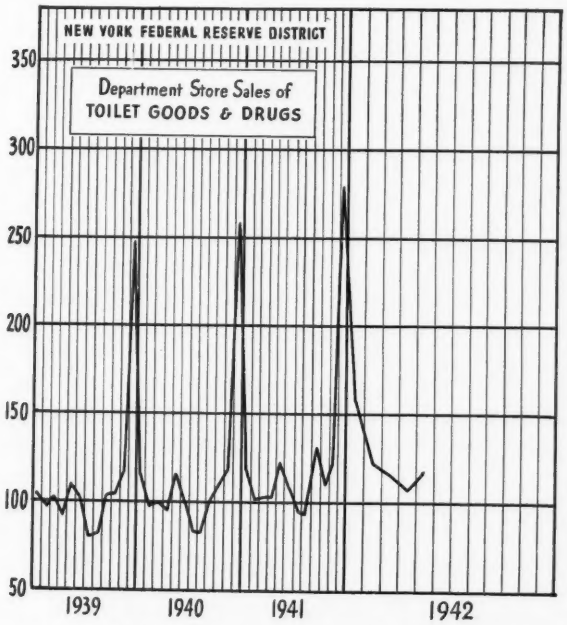
Perfume sales should be approximately like last years. Fewer large sizes in the quality brands.

Manicure sets will range from smaller ones for war workers to the more luxurious ones in the higher price ranges. Nail polish shades, most probably, will be somewhat restricted. However, this ought not to prove a hardship, especially where a manicure house carries upwards of twenty shades with many of them considered more or less of a nuisance but carried nevertheless for those few women who depend upon them. Once they are off the market and the women know they cannot get them because of a government order, they'll be glad to take the shade nearest to their favorite. New shades will undoubtedly be brought out seasonally but an old one will have to be dropped every time a new one is advanced. Color fashion trends remain somewhat undefined at this point. While there might be a greater tendency toward somewhat lighter shades, there will still be plenty of women who will stand by the darker ones so it will be best to carry a range from light to dark in as many variations as restrictions will permit.

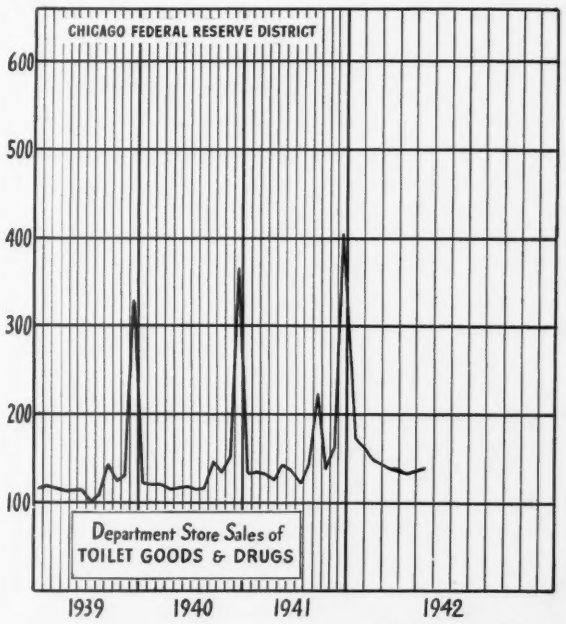
Lipstick and make-up shades also face probable restriction but the same is true in this category. Most manufacturers have entirely too many shades with such slight color variations that it is confusing to the customer and a nuisance to the manufacturer. Therefore any restrictions on nail polish and make-up shades should prove a bit of a relief to both manufacturer and consumer.

Soldiers' kits are proving good selling items—not foolishly laden, burdensome kits—but carefully assembled cases with items that a soldier really needs including a hanging mirror—and a good one! Interest seems to center about kits arranged so that they may be hung on the wall with the items easily accessible.

Cosmetic stocking preparations have taken on terrific momentum with dozens on the market now, and new ones cropping up almost every day. It is a bit early to prophesy their success—not enough repeats have been noticed. However, if they are as good as described, there is no reason why they should not continue to be a success late into the Fall. The depilatory of course is a natural to go along with this type of preparation because fuzz on the legs will do nothing to keep the product sold. The legs must be absolutely de-haired in order to produce an attractive appearance after the cosmetic stocking preparation has been applied. One of the manufacturers offers a deodorant powder along with its preparation to prevent that "barefoot in leather" feeling. That makes an interesting three-some for leg grooming!



Sales of toilet articles and drug sundries by department stores in the New York Federal Reserve District were 4 per cent. less in May 1942 than in May 1941. This corresponds to unadjusted index numbers of 118.0 for May 1942, 107.7 for April 1942, and 122.9 for May 1941.



Sales of toilet articles and drug sundries by department stores in the Chicago Federal Reserve District were 2 per cent. less in May 1942 than in May 1941. This corresponds to unadjusted index numbers of 138.4 for May 1942, 132.3 for April 1942, and 141.2 for May 1941.

NOW!..COATED LITHWITE SAVINGS AVAILABLE

TO ADDITIONAL USERS OF FOLDING CARTONS

★ **Revolutionary new *coated* board actually COSTS LESS than some uncoated boards**

★ **Read how you may improve the appearance of your cartons with this quality board, and cut packaging costs—*at the same time***

You know what happened in our war production plants when American ingenuity stripped off its coat, rolled up its sleeves and went to work. That happened in the paper boxboard industry over a full year ago, when Gardner-Richardson announced probably the most revolutionary boxboard development in 50 years.

IT WAS BIG NEWS THEN . . . IT'S BIGGER NEWS TODAY

You remember it. Gardner-Richardson made available for the first time, *Coated* Lithwite, a finer, whiter board . . . actually formed, made, and coated *on one machine . . . in one continuous operation . . . at an incredible speed.* The first board to bring together uncoated board economy and coated board quality. Because of this revolutionary, new method, *Coated* Lithwite was . . . and is . . . priced as low as many uncoated boards . . . actually lower than some.

And today, with more and more carton users going over costs with a sharp pencil, an increasing number of them are finding the answer in *Coated* Lithwite. For *Coated* Lithwite not only means real savings . . . it means finer, whiter board . . . a smoother, more velvety surface that makes inks lay more smoothly, come up brighter . . . makes half-tones, zincs, type print crisper, cleaner, sharper. *Coated* Lithwite scores without cracking, seals more positively, too.

MAKE A SIDE-BY-SIDE TEST ON YOUR DESK

Investigate *Coated* Lithwite. Write for sample sheets of this sensational coated board and sample cartons taken right off our presses. Or send us your original carton engravings, let us prove them on *Coated* Lithwite so you can make a side-by-side comparison with the cartons you are now using. Then let us make you an eye-opening quotation.

WHAT'S YOUR PROBLEM?

★ **Finding a substitute for tin, metal or glass?**

★ **Packaging dehydrated or frozen foods?**

★ **Cutting packaging costs or improving display?**

Put it up to the Gardner-Richardson technical staff. We either have the answer or we'll burn our lights at night 'til we get it. Write today, outlining your problem in full. Better still, wire or phone and ask a Gardner-Richardson representative to call and talk it over.

The GARDNER-RICHARDSON Co.

Manufacturers of Folding Cartons and Boxboard

MIDDLETOWN, OHIO

Sales Representatives in Principal Cities: PHILADELPHIA • CLEVELAND • CHICAGO • ST. LOUIS • NEW YORK • BOSTON • PITTSBURGH • DETROIT

TECHNICAL LABS. INC.

Kopal, "the cosmetic for the teeth," is now being distributed nationally by Technical Labs. Inc. Kopal is described as, "a safe, moisture-proof, natural-appearing temporary covering formulated with Copal Resin. It is resistant to mouth and food acids and alkalis, is not a cement or an abrasive, and is not toxic or irritating. Under ordinary conditions Kopal will stay on for 24 hours." It is packaged with a remover and a small instruction booklet.

TECHNICAL LABS. INC.

YARDLEY

Here is a simple and sensible addition to Yardley's "Bond Street" make-up series. It comprises a Bond Street lipstick packed with pre-selected matching shades of Bond Street make-up base and English complexion powder, a complete make-up ensemble under one lid. The box carries the Bond Street red and gold motif.

YARDLEY

TANGEE

"Her Royal Highness" is one of the Tangee creations for the current holiday merchandising season. The genuine maple box with mirror inside of cover holds lipstick, rouge (compact and creme), and face powder.

TANGEE

WM. S. MERRELL CO.

Ceepryn, a new germicidal compound which has been tested and found to possess exceptionally high bactericidal activity and negligible toxicity to animal tissue and membranes is being introduced by the Wm. S. Merrell Co. This new germicide is presented for preoperative skin sterilization, disinfection and irrigation of wounds and sinuses, and for general all-around use. Ceepryn is a quartenary ammonium salt, known chemically as cetylpyridinium chloride.

WM. S. MERRELL CO.

POND'S

Pond's "Lips" is presented in a new plastic container. The base, slightly incurved for better balance and eye-appeal, is ivory-colored, and the green cap is debossed in ivory with the words, Pond's "Lips."

POND'S

KATHLEEN MARY QUINLAN

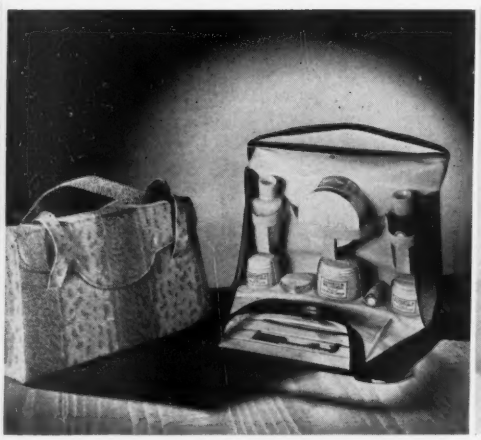
Kathleen Mary Quinlan's Poudre des Perles face powder series has been dressed in a delightful new costume—a background reflecting the iridescent variations in color of the pearl itself—the containers suggest the light delicate texture of the face powder. In three sizes.

KATHLEEN MARY QUINLAN

DOROTHY GRAY

JOHN HUDSON MOORE, INC.

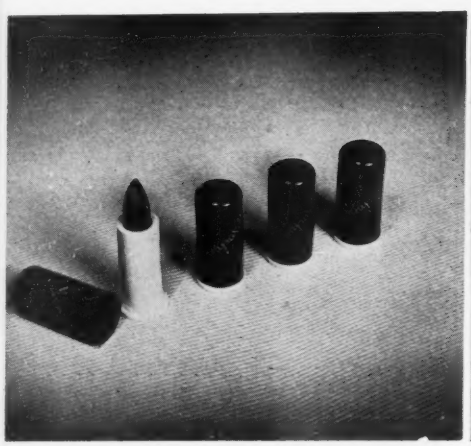
SHULT



DAGGETT & RAMSDELL

BABS CREATIONS

HOUSE FOR M



SCHIAPARELLI

POND'S

LA CR

D'ORSAY

JEAN NATÉ

HARRIET HUBBARD AYER

DOROTHY GRAY

"Leg Show" is the name of Dorothy Gray's opaque, quick drying, easy spreading, deep tan tinted liquid designed to solve the stocking problem for the summer. It goes on smoothly and easily and gives a beatiuful mat finish. It will resist rubbing when dry but not when wet.

JOHN HUDSON MOORE, INC.

Sportsman toiletries by John Hudson Moore, Inc., now boast a "ducky" addition, the Decoy Shaving Bowl, a sporty bird made of pottery, filled with fine shaving soap.

SHULTON

Shulton's new package for purse or dressing table — Old Spice Smelling Salts — is attractively presented in a gift box gaily decorated with Old Spice motif. The round bottle with its circular indentation is convenient to hold.

D'ORSAY

For the first time in four years, the House of D'Orsay is introducing a new perfume—Intoxication—which will be given its first public showing in time for the fall and winter season. The half-sweet, half-spicy fragrance comes in two sizes in a handsome jewel-cut flacon.

SHARP & DOHME

Announcement has been made by Sharp & Dohme of a new sulfa drug — "Sulfasuxidine" succinyl sulfathiazole — a dicarboxylic acid derivative of sulfathiazole. Clinical studies have shown it is active against B. coli and the Shinga, Flexner and Sonne strains of the dysentery bacillus. It is administered orally and is supplied in 0.5 Gm. compressed tablets.

DAGGETT & RAMSDELL

Daggett & Ramsdell's new Travel Charm Kit contains a full supply of beauty preparations including comb and mirror and is designed with an eye to compactness as well as completeness.

BABS CREATIONS, INC.

A new line of pine bath products to be known as Wood Nymph has been introduced by Babs Creations, Inc. Wood Nymph is a complete series of pine products including pine oil, foam bath, cologne, creme balm, and body sachet.

HOUSE FOR MEN

The House for Men is featuring the Trio Electric set of "His" preparations in ivory containers. It consists of Pre-electric shave powder, a new item in the line; After electric shave lotion, and smooth shave base.

JEAN NATÉ

Jean Naté offers a brand new Friction, but still the same familiar odor, the same bottle and package, and the same uses as Jean Naté's Friction Pour Le Bain. It is Jean Naté's Cream Friction, a thin milky-white liquid, which still combines the qualities of after bath lotion and eau de cologne.

KOLYNOS CO.

The Kolynos Co. has announced the introduction of its new product, Kolynos tooth powder. This new dentifrice with its refreshing flavor and superfine texture, will be backed by an extensive national advertising campaign.

SCHIAPARELLI

Schiaparelli's latest addition is a smart new lipstick in a navy plastic case. It comes in four shades, labeled A B C D.

POND'S

One of a line of sparkling packages is this beauty box by Pond's. Beneath the star-sprinkled cover are generous sizes of cold and vanishing cream. Pond's freshener, Danya lotion and Dreamflower powder.

LA CROSS

La Cross introduces "Penelope" —she's smart and unbreakable— and available in clover leaf and rose designs. Penelope contains regular retail-size bottles of La Cross polish, polish remover and Stazon.

HARRIET HUBBARD AYER

Harriet Hubbard Ayer has introduced the Ayer Stocking Lotion, a chic substitute for the sheerest silk hose. This preparation is easily applied, dries rapidly and gives the legs a flattering, natural suntan finish.

HOUSE OF 4711

The House of 4711 presents one of its newly designed holiday presentation sets. This consists of a bottle each of No. 4711 Classic Eau de Cologne, and the new Eau de Lavender, attractively boxed.

SHARP & DOHME

KOLYNOS CO.

HOUSE OF 4711

ENGINEERING

Medicinal Products

The production of pharmaceutical chemicals for the trade is first of all a job for experienced chemists. But chemicals essential to medicinals must be available in commercial quantities. This is a problem that involves the development of manufacturing processes whereby quantity production can be attained with absolute assurance of purity, stability and uniformity.

The development of these manufacturing processes is a phase of chemical engineering that has always been, and remains, one of Dow's major concerns. The extent to which the trade depends on Dow products is a measure of the importance of these developments. Today, with the huge requirements that must be met for our fighting forces, this importance is doubly emphasized.

DOW

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN

New York City, St. Louis, Chicago, San Francisco, Los Angeles, Seattle, Houston

DOW PHARMACEUTICAL CHEMICALS

NEWS

People

Perkins Now Lt. Colonel

George W. Perkins has been granted a leave of absence by Merck & Co., Inc., Rahway, N. J., to serve as lieutenant colonel in the Chemical Warfare Service of the United States Army, stationed in Washington. His resignation as executive vice-president and treasurer of the company was approved by the directors on June 16, and his executive offices will remain vacant for the duration of the war.

LT.-COL. GEORGE W. PERKINS

Mr. Perkins was a second lieutenant, Field Artillery, in the first world war and served with the First Division of the A. E. F. and in the Army of Occupation. He became an official of Merck & Co., Inc., in July 1927 and is also a director of several other companies, including the City Bank Farmers Trust Co. and the Regina Corp.

Becker Joins U. S. Army

George H. Becker, sales representative for Ungerer & Co. and for Th. Goldschmidt Corp. in Chicago, has reported for active duty in the U. S. Army.

Jacqueline Cochran Chief of First Ferrying Group

Jacqueline Cochran is commandant of the successful first group of American women volunteer fliers ferrying R.A.F. bombers and fighter planes to England. Miss Cochran, head of Jacqueline Cochran cosmetics, and wife of Floyd B. Odlum, New York financier, brought to her task of ferrying an impressive string of air records, including first place in the 1938 Bendix Trans-Continental Trophy Race from Los Angeles to New York by way of Cleveland.

Williams Brothers Honored

Honorary degrees of doctor of science were conferred upon Robert R. Williams, chemical director of Bell Telephone Laboratories, New York, and Roger J. Williams, his brother, professor of chemistry, University of Texas, at the commencement exercises of Columbia University. The Charles Frederick Chandler Medal for outstanding contributions to chemical science was awarded to them jointly by Columbia University last February. The brothers are known internationally for their work in the field of vitamin research.

Cohen-Mendelson

Otto J. Cohen and Erna C. Mendelson were married on May 24 at 11 a. m. in the garden of Mr. Cohen's home on San Marino Island, Miami Beach, Fla. Mrs. Cohen was formerly associated with John-Frederics, Inc., while Mr. Cohen is vice-president of Charles of the Ritz, New York.

Lowell Weicker Now Major

Carleton H. Palmer, chairman of the board of directors of E. R. Squibb & Sons, has announced that Lowell Palmer Weicker, president of the company, has been commissioned a major in the United States Army Air Corps, and granted a leave of absence from the company for the duration.

Major Weicker, a graduate of Yale University, was elected president of E. R. Squibb & Sons, January 1, 1941. He was made a director of the firm in 1932, a vice-president in 1935, and was elected vice-president in charge of sales and advertising in 1936, which post he held until he became president.

MAJOR LOWELL P. WEICKER

Magnus Addresses Druggists

Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., New York, addressed the Tennessee Pharmaceutical Association at its meeting in Knoxville late in June. His subject was "The Druggists' Place in a War Economy."

Rossett Named Lieutenant

L. Kenneth Rosett, son of Louis A. Rosett, president of Florasynth Laboratories, Inc., has been commissioned a second lieutenant in the Chemical Warfare Service. He received his commission immediately after his graduation from

LT. L. KENNETH ROSETT

the Massachusetts Institute of Technology. This is the same unit in which his father served during the first world war.

Concannon in New Position

Charles C. Concannon, Department of Commerce consultant on chemicals, has been appointed chief of the durable goods and materials unit of the Bureau of Foreign and Domestic Commerce by Jesse A. Jones, Secretary of Commerce. Mr. Concannon succeeds Phillips A. Haywood, who has accepted a post with the Navy. He will continue his work in the chemical field in addition to his new duties.

Gerard Farrell

Mr. and Mrs. Thomas R. Farrell announce the birth of a baby boy, Gerard, on June 15. Mr. Farrell is editor of THE DRUG AND COSMETIC INDUSTRY.

A Son to the Andersons

Mr. and Mrs. Harold N. Anderson have announced the birth of a son, Harold Nils Anderson, Jr., on June 4 at the Bay Ridge Hospital, Brooklyn. Mr. Anderson is with H. Kohnstamm & Co., Inc., New York.

O'Leary in the Service

James V. O'Leary, central division manager for Commercial Solvents, has reported for active duty as an officer in the Chemical Warfare Service. Mr. O'Leary was formerly located in both the Detroit and New York offices of Commercial Solvents and has been for the past several years in Chicago.

During his absence the supervision of the central and eastern divisions will be consolidated under H. B. Sliger, present eastern division manager in New York.

Smith With Seydel 25 Years

Edmund E. Smith, who joined Seydel Chemical Co., Jersey City, June 1, 1917, has celebrated his twenty-fifth

EDMUND E. SMITH

anniversary. A silver service was given him by the company in honor of the occasion.

Albert H. Reiners, chief chemist, has also completed twenty-five years of service with the company. The company's gift to Mr. Reiners was in the form of War Bonds.

Stern Anniversary

Richard Stern, president of Ferd. Mulhens, Inc., New York, was given a party by the employees on June 10 which marked Mr. Stern's 47 years and 11 months milestone in life.

Dr. Schieffelin Aids

Dr. William Jay Schieffelin has been named chairman of the drug and cosmetic industries division of the New York fund-raising campaign of Russian War Relief, Inc.

Coleman Purchases de Heriot

Eugene Coleman, Jr., has purchased de Heriot, Inc., of California. Mr. Coleman, in recent months, has been associated with Jacqueline Cochran in a sales promotional capacity. For many years he was vice-president and sales manager of Colonial Dames, Inc., of Hollywood. H. P. Willats, president of Colonial Dames, is also interested in de Heriot, Inc., having purchased the line jointly with Mr. Coleman. Harriet Hesson, who founded de Heriot several years ago, will be associated with the new corporation.

Dinner to Lee Camp

G. Lee Camp, who retired June 30 as vice-president, member of the board of directors and co-general manager of the organic chemicals division, Monsanto Chemical Co., St. Louis, was given a surprise dinner at the Manhattan Club,

G. LEE CAMP

New York, by forty of his friends on June 17.

Arrangements were made by James J. Kerrigan and Douglas Coutlee of Merck & Co. Francis J. McDonough, New York Quinine & Chemical Works, presided at the dinner. Mr. Kerrigan presented Mr. Camp with a morocco-bound book containing the good wishes and signatures of his friends. The main feature was the presentation by George Simon, Heyden Chemical Corp., of a bronze clock-barometer-thermometer.

George Uhe in Service

George Uhe, head of the George Uhe Co., has reported for active duty with the U. S. Army. He was recently appointed first lieutenant in the Sanitary Corps. During Mr. Uhe's absence the company's business will be continued by D. J. Briasco, head of the essential oils department; A. C. Schoenwaldt, pharmaceuticals; Gilbert A. Schuster, spices and gums; and M. J. Hayes, industrial chemicals.

Ludlow Now Lieutenant

A. R. Ludlow, Jr., formerly assistant to L. A. Keane, vice-president and general sales manager of U. S. Industrial Alcohol Co., has resigned to accept a commission as second lieutenant in the Army Air Corps.

Wilson in Army

John G. Wilson who has been in the New York office of Dow Chemical Co. reported for active duty with the Navy July 1.

Companies

S. B. Penick Jr.—Firm President

The first change in the presidency of S. B. Penick & Co. since its formation nearly thirty years ago has been made with the election of S. B. Penick, Jr., formerly executive vice-president, to that office. S. B. Penick, Sr., former president and founder of the firm has been elected to the recently created office of chairman of the board.

S. B. PENICK, JR.

Mr. Penick, Jr., was born in Virginia in 1905 and was graduated in 1925 from Princeton University, where he was elected to Phi Beta Kappa. He started with the company at one of its New Jersey plants and for the past seventeen years has been continuously associated with the firm in various capacities of increasing importance. For the past five years he has served as executive vice-president.

At present he is chairman of the Drug and Chemical Section of the New York Board of Trade. Within the past month he completed several years of service as secretary of the American Pharmaceutical Manufacturers' Association. He is a member of the board of governors of the Drug and Chemical Club of New York City.

Calco Appoints Howerton

R. D. Howerton has been appointed manager of the Chicago office of the Calco chemical division of American Cyanamid Co., with headquarters at 146 West Kinzie St., that city. Mr. Howerton was born in Lexington, Va., and received his B. A. in chemistry from Washington and Lee University in 1922. After teaching a year at Staunton Military Academy, he was employed in the textile plant of Stonecutter Mills, Spindale, N. C. He has since been engaged in the dyestuff and textile equipment fields.

Brewer Returns to Calco

W. O. Brewer who has been with the War Production Board for the past six months is returning to his post at the Calco Chemical division of American Cyanamid Co., Bound Brook, N. J.

Deodorant Patent Invalid

United States Patent No. 2,236,387, under which the deodorant cream, "Arrid" has been manufactured by Wallace Laboratories has been found as not embodying patentable invention by Judge Byers of the U. S. District Court of the Eastern Court of New York. The suit was brought by Wallace against F. W. Woolworth Company, because Woolworth sold Hind's Deodorant Cream. The suit was defended by Lehn & Fink Products Corporation, manufacturer of the product against which the infringement was charged.

Of the sixteen claims in the patent, all but four (4, 9, 10, 14) were involved in the suit. The decision states that many of the claims involved "are so drawn as to broadly cover an astringent composition consisting of ingredients classified according to their chemical characteristics, but for the purpose a concrete embodiment of the concept alone need be quoted—thus claim 12:

" 'A cosmetic astringent cream preparation including aluminum sulfate as its essential astringent ingredient together with urea.'

"The aluminum sulfate and urea are embodied in a non-drying cream for convenient application, but no reaction not otherwise intended is thereby effected. The aluminum sulfate constitutes about 21 per cent., and the urea about 12 per cent. of the composition, the base or cream accounting for about 66 per cent. of the bulk of the commodity.

"The defendant's product contains about 17 per cent. aluminum sulfate, 11 per cent. urea, and 72 per cent. cream base. Thus, in a practical sense, the two preparations are sufficiently alike to preclude any issue of infringement."

The introduction of urea into the preparation to overcome acidity which would cause damage to fabrics, was deemed by the Judge to be so close to work of Koch in Patent No. 2,011,292 as not to constitute invention. Koch used a combination of aluminum acetate and aluminum formate.

Conti Products Changes

Frank R. Huisking, director and secretary of Conti Products Corp., has joined the U. S. Army. He is the third son of Charles L. Huisking, president of the company, to go into the service.

William J. Schlosser, sales manager of the company, has resigned as of July 31. Frank L. Schaider, in charge of the beauty industry end of the business, will now take full charge of sales.

Stephen L. Nordlinger, vice-president and director of Conti Products was a lieutenant in the Officers Reserve Corps and was called to active duty when the United States entered the war. Since that time he has been advanced to the rank of major.

Charles L. Huisking, president of the company, has now assumed active management.

Additions to Evans Associates

Ralph L. Evans Associates, the research division of Evans Chemetics, Inc., has added six chemists to its laboratory staff. They are: Dr. S. A. Bell, formerly instructor at Columbia University; Clifford H. Bundy, M.S., Princeton University; Philip Heiberger, M.A., Cornell University, formerly with Colgate-Palmolive-Peet Co.; Dr. John S. McCoy, New York University; Dr. John F. Mulvaney, formerly an instructor at New York University; Florence M. Thein, B.S., Mt. St. Vincent College.

Godefroy Celebrates 60th Year

In commemoration of its sixtieth anniversary in business, the Godefroy Manufacturing Co., St. Louis, gave each of its employees sixty silver dollars. The firm is also known as the sponsor of a retirement plan whereby all workers will receive a minimum of seventy-five dollars a month for life, beginning at the age of sixty-five for men, at sixty for women.

The Godefroy Co. has been located at the same address, 3510 Olive St., St. Louis, since its founding by the late A. F. Godefroy, father of the present head of the company. The elder Godefroy was known as charter member and first president of the National Hairdressers and Cosmetologists Association. Another Godefroy company, established in the early part of the century in Mexico City, was the first beauty salon in Mexico. The Latin-American enterprise is directed by A. F. Godefroy, another son of the founder.

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THE WAR EFFORT

by reducing the alcoholic content of your colognes, toilet waters, tonics, lotions, astringents, rinses, etc.

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[Water Soluble Perfumes]

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MEMPHIS, TENN.
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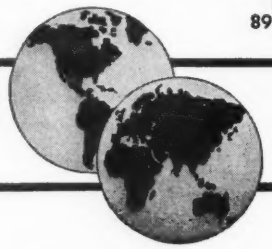
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



O'Brien Joins Searle

John G. Searle, president of G. D. Searle & Co., Chicago, has announced that the company has added Franklin P. O'Brien to its executive staff. He will act as Mr. Searle's executive assistant.

Mr. O'Brien, whose home is in Winnetka, Ill., will give up his position as president of the Franklin Realty Corp. and the building and investment companies associated with that organization, but will retain his financial interests in them.

Born in Chicago, March 1899, he received his A. B. degree, with honors, from Cornell University in 1919, and was elected a member of Phi Beta Kappa. His college course was interrupted by World War I when he was commissioned a second lieutenant at Fort Monroe, Va. After completing his college course he engaged in sales promotional work for five years with the American Colortype Co. of Chicago. Since that time he has been in the real estate and mortgage business on the North Shore.

FRANKLIN P. O'BRIEN

Lipscomb Succeeds Hermann

Charles T. Lipscomb, Jr. has been appointed a vice-president of McKesson & Robbins to succeed Charles Hermann in charge of the company's industrial chemical division. Mr. Lipscomb joined Vick Chemical Company in 1929 after graduation from the University of North Carolina, and rose to sales manager of the Southern region with offices in New York. In December, 1939, he became a special representative of the Coca-Cola Company with headquarters in Atlanta.

Mr. Hermann, who has resigned from the position of manager of McKesson's industrial chemical division to become vice-president of R. J. Prentiss & Co., New York, will join the Prentiss firm on August 1.

CHARLES T. LIPSCOMB, JR.

Bachman Joins Commercial Solvents

Paul W. Bachman has been appointed assistant research director of Commercial Solvents Corp., Terre Haute, Ind. Dr. Bachman, a graduate of Johns Hopkins University where he also received his doctor's degree, was formerly manager of research and technical supervisor of phosphates for General Chemical Co.

PAUL W. BACHMAN

K. H. Hoover is manager of the research and development department of Commercial Solvents and Jerome Martin is research director.

Goldschmidt Company Divided

The marine business formerly carried on by Th. Goldschmidt Corp., New York, is now being conducted by Goldschmidt Corp.

The chemical and related business formerly carried on by Th. Goldschmidt Corp. is now being conducted by Goldschmidt Chemical Corp. Business of the two new corporations will be carried on at the former Goldschmidt address, 153 Waverly Pl., New York.

Pepsodent Moves Offices

The general offices of the Pepsodent Co. were moved July 1 from the company's plant to the 21st floor of the Board of Trade Building, West Jackson Blvd., Chicago.

Stolen Menthol

Charles L. Huisking & Co., Inc., New York, was the innocent victim of an organized plan to sell menthol, stolen from the Comfort Manufacturing Co., Chicago. After its original purchase, the Huisking company became suspicious and reported the matter to the Chicago police. Investigation showed that the menthol had been stolen from the Comfort Manufacturing Co. The Huisking company returned the menthol to Comfort Manufacturing Co. at a considerable loss to itself.

Ultra-Violet Generator

Pfaltz & Bauer, Inc., New York, is offering a new type pure fused quartz ultra-violet generator adaptable for the testing and study of pharmaceutical products. The unit is said to be of practical value for the determination of the rate of deterioration of certain drugs, for the sterilization of containers by ultra-violet light, and for identification purposes. Literature is available upon request.

Largest Perfume Importation

A shipment consisting of 315 cases of perfume specialties and aromatic chemicals, the largest ever received by Firmenich & Co., New York, from Firmenich and Cie (Chuit, Naef) Geneva, Switzerland, arrived here the early part of June on steamers from Lisbon and Genoa.

In the opinion of Rupert C. Watson, manager of Firmenich & Co. this is the largest shipment of perfume raw materials received in this country from any source since the beginning of hostilities in 1939.

Prior to this shipment, Firmenich & Co. had been receiving their materials with a minimum of delay under the circumstances, even though the importation of similar goods from the European continent and other primary points was severely curtailed. This latest shipment assures the company's customers of a continuation of their perfume raw material supplies which they previously have been receiving without interruption.

Wallach Joins A.P.C.

Benjamin E. Wallach, formerly with Abbott Laboratories, has joined the American Pharmaceutical Co., Inc., New York, as director of the professional service division.

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TELEPHONE: MURRAY HILL 5-0250-1-2
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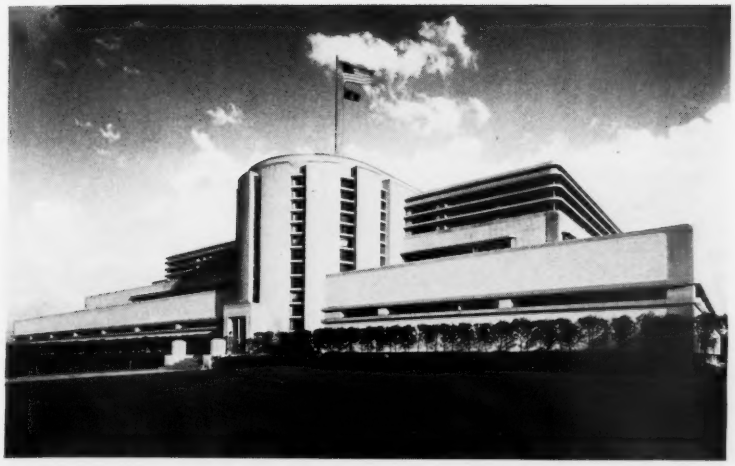
Aromatic Chemicals-Essential Oils



The new plant of G. D. Searle & Co., Chicago, recently dedicated, represents an embodiment of all the latest improvements that make for proper control and production of fine medicines, as well as ease of operation and maximum of comfort for employees. The heart of the structure is the research laboratory occupying almost the entire second floor.

War Bond Campaign

Several companies in the drug and cosmetic industry contributed greatly to the success of the Greater New York War Bond Pledge Campaign through their sizeable contributions which enabled the committee to buy many additional large space units in the series of advertisements run in newspapers.

H. L. Brooks, president of Coty, was a member of the general advertising steering committee and also acted as chairman of a special committee in the drug field.

Total space cost of the campaign exceeded $150,000. Some of the companies contributed to a general pool while others made individual contributions. The largest contributor in the drug and cosmetic field was the Bayer Co. which individually sponsored pages in the *Times*, *News*, *Mirror*, *World-Telegram*, *Bronx Home News* and *Brooklyn Eagle*. Other sponsors of individual pages included Coty, Bourjois, Julius Schmid and Revlon Products Corp. Both the Bayer Co. and Coty also sponsored War Bond Pledge Campaign floats in the New York At War Parade.

The companies in the group, whose donations bought a total of seven pages in various dailies, included: Bristol-Myers Co.; Burroughs Wellcome & Co., Inc ; Carter Products Inc.; Charles of the Ritz; E. Fougera & Co., Inc.; Lambert Co.; Lehn & Fink; George W. Luft; McKesson & Robbins; Merck & Co.; Roger & Gallet; Schieffelin & Co.; Tampax Inc.; Vick Chemical Co.; Paul Westphal, Inc.; and Young Rubber Corp.

Gordon Cox—Tilden President

W. Gordon Cox, former secretary of the Tilden Co., New Lebanon, N. Y., has been elected president and treasurer, filling the vacancies caused by the recent death of J. Harry Cox. A. Ross Rider, who joined the firm as an office boy forty-eight years ago, has been elected secretary.

New Wax & Oil Company

G. S. Ziegler, vice-president and general manager of Allied Asphalt & Mineral Corp., New York, has announced the establishment of a new division—the wax and oil division of Allied Asphalt & Mineral Corp. H. W. Kraaz, who formerly acted as vice-president and sales manager of the Koster Keunen Wax & Oil Products Co , Sayville, N. Y., is manager of this new division. For the past twelve years, Mr. Kraaz has been associated in the wax and oil industry and has complete detailed technical knowledge of these materials and their uses. The new division will supply amorphous mineral waxes, composition waxes, synthetic montan waxes, American ozokerites, ceresines, synthetic carnauba waxes, petrolatums and white mineral oils as well as naphthenic acids and naphthenic soaps.

Millikan Joins Strassenburgh

F. Ford Millikan has joined the staff of R. J. Strassenburgh Co., Rochester, N. Y., as chief chemist in charge of production. He is also head of the analytical and control laboratories.

Liggett Officers to Boston

The entire sales and buying departments of Liggett Drug Co. now located in New York, will be moved to the offices of the United Drug Co. in Boston about September 1. Only the auditing and personnel divisions will remain in New York.

James J. Clark, assistant to the president of Liggett, has announced that the move is being made solely in the interest of more efficient cooperation between the Liggett Co. and United, its manufacturing affiliate. Between twenty-five and thirty executives of the company will be moved and no executive personnel changes will be involved.

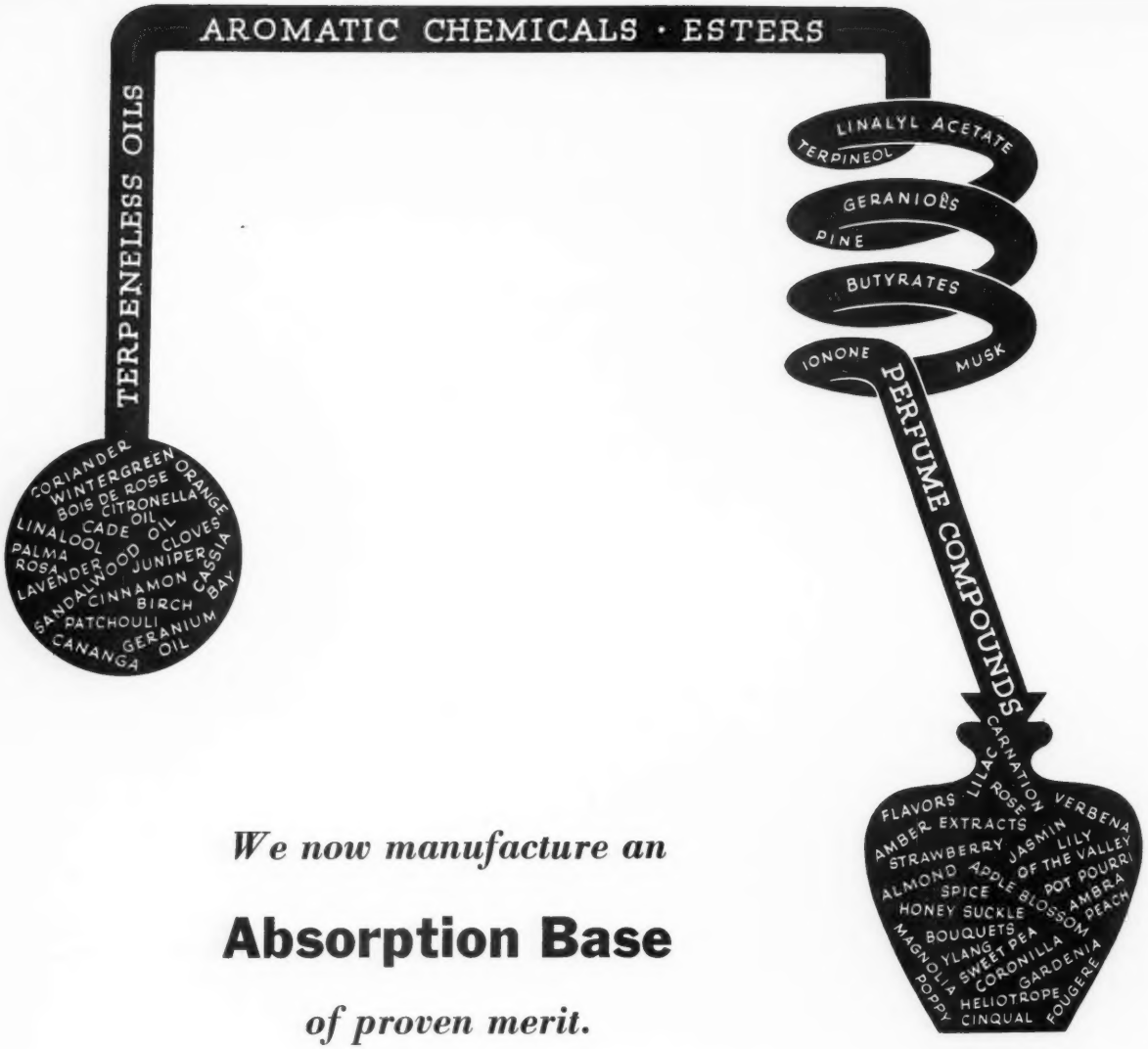
Bayer Plant to Trenton

Harvey M. Manss, president of the Bayer Co., Inc., Rensselaer, N. Y., has announced that, inasmuch as the Rensselaer plant has been outgrown, the packaging and finishing facilities of the company as well as warehouse stock will be moved to Trenton, N. J. The manufacturing plant will remain at Rensselaer where it covers twenty-seven acres.

Williams on U.S.I. Board

E. C. Williams has been made a member of the board of directors of U. S. Industrial Chemical Co. Dr. Williams is a director of General Mills, Inc., and vice-president in charge of its research.

Arthur Irish, for the past eight years manager of the Vancouver branch of Florasynth Labs. and Dr. Alexander Katz.



We now manufacture an

Absorption Base

of proven merit.

Please write for samples!

Your best source for all Essential Oils.

STANDARD SYNTHETICS, INC.

119 West 25th Street **New York, N. Y.**

CHICAGO • SAN FRANCISCO • KANSAS CITY, MO.

Cordero Advanced by Lueders

Frank M. Cordero, head of the accounting department of George Lueders & Co., New York, was elected director and assistant treasurer of the company at the meeting of the directors June 18. Mr. Cordero has been associated with George Lueders & Co. for over fourteen years.

Lueders Buying Bonds

George Lueders & Co., New York, has received from Henry Morgenthau, Jr., Secretary of the Treasury, a certificate stating that over ninety per cent. of the company employees are buying War Bonds on the payroll deduction plan. The company has been informed that it is the first in the industry to be so honored.

Edwal Adds to Staff

James W. Watters, Richard I. Jackson and Eurilla Herrin have been added to the chemical staff of Edwal Laboratories, Inc., Chicago. Mr. Watters, who received an M.S. degree from the University of Chicago in 1938, was previously with the U. S. Drug Administration. Dr. Jackson received his Ph.D. from Michigan State College in 1940 and has been teaching at Trinity University, Waxahachie, Texas. Miss Herrin received a B.S. degree from Central Y.M.C.A. College of Chicago in 1942.

Colgate Buys Plant

Colgate-Palmolive-Peet Co., Jersey City, has purchased the refining plant and warehouse, consisting of six buildings on the southeast corner of Essex and Washington Sts., that city, which were formerly owned by the American Sugar Refining Co.

John Wyeth Gets Navy "E"

The first All-Navy "E" ever awarded to a pharmaceutical manufacturing company was presented to John Wyeth & Brother, Inc., Philadelphia, June 12. The award was one of the first two made by the Bureau of Award at the recommendation of the Bureau of Medicine and Surgery. The other was made to Johnson & Johnson, New Brunswick.

Orange Flower and Neroli

Dr. Alexander Katz of Florasynth Laboratories has announced that the company has successfully distilled orange flower water and oil of neroli from California orange flowers at its plant in Los Angeles. Dr. Katz says that the orange flower water meets all U.S.P. requirements for such products.

National Oil Buys Fish Liver Plant

National Oil Products Co., Harrison, N. J., has acquired the Boston, Mass., fish liver reduction plant of the Rowland Marine Products Co., the largest and most recently constructed cod liver oil production plant in the United States, according to an announcement by Percy S. Brown, vice-president in charge of Nopco's vitamin department. The plant functions as a production unit only and sales of its cod liver and other fish liver oil finished products are handled by Nopco's vitamin sales divisions at Harrison, N. J.

McKesson Recovers Taxes

The Bureau of Internal Revenue has announced that it has determined overassessments of $134,391 and $285,668 in income and excess profits taxes paid by McKesson & Robbins, Inc., in 1931 and 1935. The reason for the overassessment was over-statement of income and understatement of losses sustained on the exchange of assets.

Sheffield Joins Army

Thomas C. Sheffield, Western Manager of the New England Collapsible Tube Company was recently commissioned a Second Lieutenant in the U. S. Army Air Force. He left June 23rd to start his training at Miami Beach, Florida. During his absence, Charles E. Arch will be in charge of the company's Chicago office.

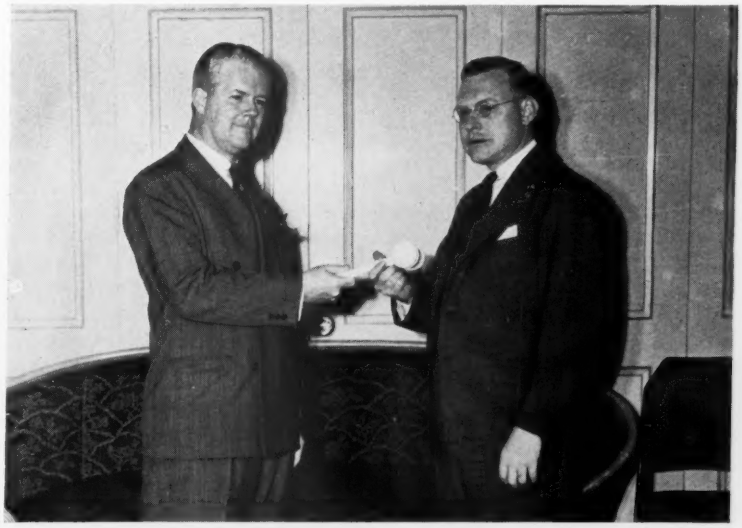
U.S.I. Earns More

U. S. Industrial Alcohol Co. and subsidiaries report a net profit of $1,996,077 for the year ended March 31, after deducting $1,950,000 for federal income taxes and $1,500,000 for contingencies. This is equal to $5.30 a share and compares with a net profit of $836,305, or $2.14 a share, earned in the preceding fiscal year when provision for federal income taxes amounted to $275,000.

Forsman Heads War Golf

Peter L. Forsman of the Forsman Printing Co. and chairman of the golf committee of the Wykagyl Country Club, New Rochelle, N. Y., has been designated as the national director of tournaments for the War Golf Fund for Army Emergency Relief.

The War Golf Fund, on whose executive committee are the outstanding American golfers and supporters of the game, has been created to organize the golfers in every state in the nation for the raising of funds for Army Emergency Relief. The Fund will conduct an elaborate program of tournaments to be held at the 5200 clubs in the country. An "Army Emergency Relief Tournament" will be held at each club with an entrance fee of one dollar. Each contestant in the tournaments will sign his or her name in a gigantic Album of American Golfers, which upon completion will be presented to General John J. Pershing, honorary president of Army Emergency Relief.



MR. TOOHY RECEIVES GAVEL FROM MR. PENICK

N. J. Machine 100 Per Cent. for Bonds

When the plan for the purchase of War Bonds by payroll deduction was presented to the employees of the New Jersey Machine Corp., 80 per cent. signed up immediately. The other 20 per cent. were not present but, when their shift came on, they too pledged their regular contributions, making the New Jersey Machine's Corp. support of the plan 100 per cent.

Associations

Toohy Receives Gavel

John J. Toohy, manager of distribution for E. R. Squibb & Sons, was honored at a meeting of the executive committee of the Drug, Chemical and Allied Trades Section of the New York Board of Trade when an engraved gavel was awarded to him. In making the presentation, S. B. Penick, Jr., president of S. B. Penick & Co. and chairman of the section, expressed the sincere appreciation of the entire membership for the conscientious and successful work done by Mr. Toohy in 1941 when he was the section's chairman.

Spline Heads Ad Club

Preceding a banquet and entertainment, held at the Park Central Hotel, New York, June 18, the Pharmaceutical Advertising Club of New York held its annual election of officers. Officers elected were: president, Robert E. Spline, Bristol-Myers Co.; vice-president, E. M. Rothenberger, Sandoz Chemical Works; treasurer, Paul de Haen, Riedel-de Haen, Inc.; secretary, Jewett H. Frazer, Arlington Chemical Co.

The retiring president, E. A. H. King, Crookes Laboratories, presided.

S.O.C.M.A. Meeting

The Synthetic Organic Chemical Manufacturers Association held its regular meeting and outing at the Absecon Country Club, Seaview, N. J., June 5 and 6. About sixty-five attended, most of whom took part in the golf tournament. Prize for the low gross was won by V. E. Williams, Monsanto Chemical Co.; for the lowest number of putts by M. M. Bixby, Hercules Powder Co.; for the best approach by F. H. Strafford, Verona Chemical Co., and for the longest drive by A. B. Claw, Calco Chemical division of American Cyanamid Co. Blind boogie winners were:—Van Riper, E. I. duPont de Nemours & Co.; E. M. Maxwell, National Aniline division of Allied Chemical & Dye Corp.; and W. T. Haebler and Bert Neiss, American Dyewood Co.

BIMS of Boston

The BIMS of Boston held its first golf tournament and dinner party of the season July 7 at the Commonwealth Country Club, Newton, Mass. Robert C. Kelly is chairman of the BIMS of Boston.

Obituaries

Anne Ogilvie Curry

Anne Ogilvie Curry, one of the seven Ogilvie sisters, hair and scalp specialists, died June 27 at Columbia-Presbyterian Medical Center, New York, after an extended illness.

Mrs. Curry was the third of the seven sisters and had been manager of the Ogilvie Sisters salon for women, New York, from 1919 until she became ill. She was the wife of John H. Curry, a former California business man, and was the last of the seven sisters to join the firm. Mr. Curry also entered the business when they came to New York from San Francisco and is now in charge of the sales department of the company.

Herbert Greer French

Herbert Greer French, senior vice-president and treasurer of Procter & Gamble Co., died at his home in Cincinnati June 25. He was seventy years old.

Mr. French became associated with Procter & Gamble in 1893. When his father, who was treasurer of the company, died, he succeeded to the position and was also made a director.

George Y. Hutchins

George Y. Hutchins, one of the five charter members of E. L. Patch Co., Stoneham, Mass., died at his home there June 11, after an illness of a year and a half. He was eighty-three years old.

Mr. Hutchins retired from active business three years ago after having served as a director for fifty years, as secretary of the board for thirty-four years, as clerk of the corporation for twenty-one years and as purchasing agent for many years.

Mr. Hutchins, who was born in Lowell, Mass. in 1859, enrolled as a student in the Massachusetts College of Pharmacy in 1879. It was there that he met Professor Edgar L. Patch who was professor of theory and practice of pharmacy, as well as a partner in the firm of Canning & Patch of Boston, where Mr. Hutchins worked while attending school. Upon his graduation from Massachusetts College of Pharmacy in 1884, he resigned to manage the store of J. F. Ryder at 50 Washington St., Boston (now Liggett's) and remained there until the organization of the E. L. Patch Co. in 1887 when he became one of the charter members and a director of the firm.

John Mitchell Levis

John Mitchell Levis, former treasurer and a founder of the Illinois Glass Co., Alton, Ill., which was later merged with Owens-Illinois Glass Co., died in Chicago July 1. He was eighty-four years old.

Tom O'Donnell

Tom O'Donnell, traffic manager for Mallinckrodt Chemical Works, St. Louis, died July 2.

Victor E. Ruehl

Victor E. Ruehl died June 16 at his home in Caldwell, N. J., after an extended illness. He was sixty years old. Associated with Merck & Co., Inc., he had devoted the greater part of the past ten years to exploration and research in the Far East and Latin American countries for the purpose of increasing the supply on this hemisphere of cinchona bark.

He was loaned to the Federal Government several years ago by Merck & Co., Inc., to survey cinchona production facilities in Latin America.

Born in 1881, Colonel Ruehl enlisted as a private in the war against Spain, and it was while serving in the Philippines that he began to acquire a knowledge of tropical plants which proved so useful in the succeeding years. When he returned to this country he attended the University of Indiana and was graduated from the University of Indiana Law School. After several years on the editorial staff of the American Law Book Co., he re-enlisted in the U. S. Army in 1917 and was commissioned a major. At the end of the first World War, he engaged in special work for the Secretary of War in the Far East. It was at this time that he recognized the seriousness of the dependence of the United States upon the Far East for its supplies of such an essential drug as quinine, which eventually led to his association with Merck & Co.

Keeping Posted

(*Continued from page 27*)

Substitutes

The Scientific Advisory Committee of the T.G.A. has studied further substitutes for scarce materials. The following are the recommendations of the Committee.

Thymol. The Committee has been advised that where thymol is used for its antiseptic properties there are available, in various degrees of purity, similar products such as chemical isomers of thymol. These isomers are said to have about the same phenol coefficient as thymol, and closely resemble thymol in odor. In cases where a thymol like odor is desired, the committee has been advised that di-isopropyl metacresol is available—the odor of this substance is somewhat less intense than thymol.

Glycerine. The Committee in continuing its study of substitutes for glycerine has the following to report:

(a) Invert sugars or syrup obtained from sucrose, consisting of various mixtures of dextrose, levulose, and sucrose have been suggested. These materials, however, are subject to the same rationing regulations as sugar. The problem of fermentation may arise, and the Committee suggests experiments with various inhibitors of microbiologic action.

(b) Corn syrup has been suggested as a substitute for glycerine in some cases. Members of the industry having information on this substitute are urged to send such information to the Committee.

(c) It has been suggested that sodium lactate might have possibilities as a substitute for glycerine where one is primarily interested in the humectant property of glycerine. Inasmuch as this material has an unpleasant taste it could not be considered for products other than those applied externally. The Committee is not in a position to recommend the use of sodium lactate as a substitute for glycerine, and suggests an experimental study of this material. The Committee would like to obtain all possible data on this substance, and will appreciate the cooperation of members of the industry.

Cetyl Alcohol. In Bulletin No. 391 the Committee suggested that synthetic cetyl alcohol might be available, because of expanding production. This production, however, has not yet reached the point where supplies are readily available. The Committee will be pleased to hear of any possible substitutes which have come to the attention of members of the industry.

Coconut Oil. Coconut free fatty acids, which are available in limited quantities may be substituted for coconut oil in some cases.

Hydrogen Peroxide. This item has not been so readily obtainable. However, the situation is greatly improved, and supplies are available. In the opinion of the Committee there is no substitute for this item.

Menthol. This material is difficult to obtain, and the situation can become only worse. In some cases partial substitution for Menthol can be made with Peppermint Oil. Synthetic Menthol though not readily available, is suggested by the Committee as a substitute for Menthol from Peppermint Oil. It is suggested that the synthetic material may be advantageously used in products for external use, where a cooling effect is desired. Where taste is involved the Committee recommends careful experimentation.

Plastics Restricted

Thermoplastics are now under allocation by order M-i54 issued by WPB June 27. Thermoplastics include: Polymers of styrene, polymers of the esters of acrylic and methacrylic acid, polymers of vinyl acetate which has been partially or wholly hydrolized and reacted with aldehydes such as formaldehyde, acetaldehyde, or butyraldehyde, polymers of vinylidene chloride, cellulose acetate-butyrate, cellulose acetate, cellulose nitrate (except that used in explosives and protective coatings), ethyl cellulose (plasticized), monomer and polymers of vinyl acetate, Nylon, polymers of vinyl alcohol—polymers of vinyl acetate which have been partially or wholly hydrolized.

Four classes of products are set up under the order. Defense orders are to be completely filled first. After defense orders are taken care of, supplies can be shipped to makers of Class I products. After defense orders and Class I orders are filled, supplies can be shipped Class II manufacturers to the extent of fifty per cent. of the orders, or if he cannot ship fifty per cent., then he shall ship to all on the same percentage basis.

After defense orders, Class I orders, and fifty per cent. of Class II orders are shipped, makers of thermoplastics can ship additional supplies to Class II users and can also ship to Class III users, these two classes being treated on an equal basis after Class II has received fifty per cent. of its orders.

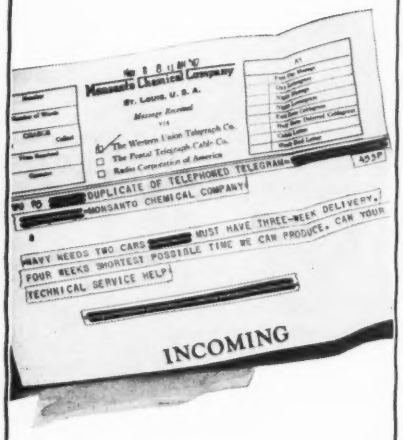
Class I includes health supplies for medical, surgical, dental, or veterinarian use, among which are: Laboratory equipment and supplies; tooth brushes; containers and closures for biologicals, anti-toxins, serums, sterile ampoules, and intravenous solutions; medical chemicals; antiseptics and germicides; botanical drugs; hormones and glandular drugs; vitamins, including human nutritional use; preparations for medicinal use as recommended by the Health Supplies of the WPB.

Class II uses comprise "such uses as have been considered essential for the convenience and welfare of the civilian population, such as commercial equipment, household appliances, and essential personal items." Included under "essential personal items" in Class II are: Lipstick holders, service vanity cases for rouge and powder not to exceed one and one-half inches in diameter or one and one-half inches square, containers for tooth paste shaving cream and other personal sanitary use, closures of minimum functional weight.

Class III includes "items which are useful, but are either not essential or do not meet the minimum functional weight requirements of Classes I and II." Under this class are listed: medical instruments, nonprofessional; throat lights; tongue depressors.

The Navy asked the impossible—and got it...*in a week!*

One of a series of cases from the files of Monsanto's Technical Service Department which show how skill, experience and ingenuity can solve many critical wartime production problems. For obvious reasons names and any identifying clues have been omitted.

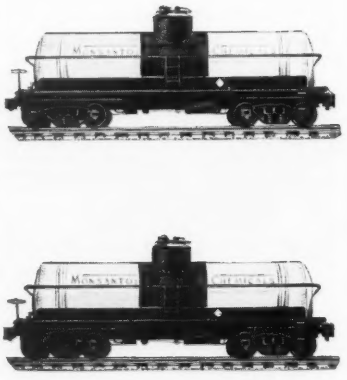

Monsanto Chemical Company
St. Louis, U. S. A.
The Western Union Telegraph Co.
The Postal Telegraph Cable Co.
Radio Corporation of America
DUPLICATE OF TELEPHONED TELEGRAM
MONSANTO CHEMICAL COMPANY
NAVY NEEDS TWO CARS MUST HAVE THREE-WEEK DELIVERY.
FOUR WEEKS SHORTEST POSSIBLE TIME WE CAN PRODUCE. CAN YOUR
TECHNICAL SERVICE HELP
INCOMING

1. This is the wire a hopeful sales correspondent recently marked "RUSH—Technical Service, please handle!" It was signed by a Monsanto customer of long standing.

═══ was a product manufactured by the customer largely from raw materials supplied by Monsanto. To produce the quantity needed and to meet Navy specifications would ordinarily require a series of relatively simple but time-consuming operations.

2. But in two days Technical Service had worked out a new manufacturing process telescoping several of the previous steps into one...on the third day production was started . . . and within a week, two tank cars of the product were on their way to the Navy, *two weeks ahead of the specified delivery date!*

Obviously not all the problems referred to Monsanto Technical Service these hectic days are so quickly or happily solved.



3. You will find, however, that two factors often give Monsanto technical men a head start towards a solution; (1) a thorough understanding of *your* basic problems; (2) a broad knowledge of their *own* business which springs from the very breadth and variety of Monsanto's chemical manufacturing experience. Finally, you will find them especially eager to help on war production problems. MONSANTO CHEMICAL COMPANY, St. Louis, U. S. A.

MONSANTO CHEMICALS

SERVING INDUSTRY...WHICH SERVES MANKIND

"E" for Excellence... denoting the highest service accomplishment of the United States Navy...flies over Monsanto "in recognition of production of ordnance materiel vital to our national defense." In addition to the Ordnance flag and "E" pennant, Monsanto has now been awarded the All-Navy "E" burgee, at left, "for excellence in war production."

F.T.C. ACTIVITIES

Orders

Thomas Hair Treatment

The Thomas Management Corp., the Paul A. Thomas Trust, and 6 individuals all of Chicago, have been ordered to cease misrepresentation of their products.

Individual respondents named in the order are Paul A. Thomas, Sr., Catherine M. Thomas, and Norbert J. Thomas, officers of the corporation and trustees of the trust; Paul A. Thomas, Jr., officer of the corporation; and Ruth and Madeline Thomas.

Commission findings are that operators of the hair treatment offices give wide circulation to advertisements, many of which are prepared by the management corporation, to the effect that the operators can diagnose and cure scalp trouble, stop falling hair, and re-grow hair, and the operators sell courses of treatment, including cosmetics, to persons who call at the offices; sell "Home Treatment Kit" assortments to persons unable to come to the offices; and also sell medicinal preparations for internal use known as "Trichotone" and "Trichovita."

The Thomas Management Corp. is an exclusive manufacturer of chemicals and supplies which it sells to licensed operators for use in "The Thomas' " hair and scalp treatments. All of the corporation stock is owned by the Paul A. Thomas Trust, which grants licenses to individual respondents and others to operate hair treatment offices under the name "The Thomas' " in New York, Brooklyn, Newark, Boston, Providence, Philadelphia, Baltimore, Washington, Albany, Syracuse, Rochester, Buffalo, Pittsburgh, Cleveland, Columbus, Dayton, Cincinnati, Louisville, Indianapolis, Toledo, Detroit, Chicago, Minneapolis, Portland, Seattle, San Francisco, Oakland, Los Angeles, St. Louis, New Orleans and Atlanta.

The Commission order directs the respondents to cease advertising that their preparations constitute a cure or remedy for, or have therapeutic value in treating, dandruff, in excess of the removal of dandruff scales; or are effective treatment for any form of itching scalp in excess of affording temporary relief from the symptom of itching when such itching is not caused by sytemic or constitutional conditions.

The respondents are further ordered to discontinue representing that dandruff is caused by the flask bacilli of Unna and that their preparations will destroy such germs; that the preparations have therapeutic properties effective for inducing hair growth or in causing new hair to grow; that use of the preparations will prevent abnormal loss of hair or induce a normal growth on thin and bald spots, and prevent, cure, remedy, or have effective therapeutic value in the treatment of, baldness; and that Trichovita and Trichotone supply elements essential to hair growth, have therapeutic value in stimulating such growth, or will rejuvenate the formative cells from which hair grows.

Cravex Claims Stopped

Plant Products Co.,Inc., North Hollywood, Calif., and its officers, James R. Plant and Sara B. Plant, are ordered to cease any advertisement which represents that "Cravex" is a treatment for alcoholism, or that its use will relieve or remove the craving for alcoholic liquors or enable a person addicted to excessive drinking to discontinue the use of alcoholic liquors.

Findings of the Commission are that "Cravex" is of no value in the treatment of alcoholism. The extent to which it might be of value, the Commission finds, is in the after-care or building treatment after an aversion to or stoppage of the use of alcoholic liquors has been obtained and the toxins produced in the system by alcohol eliminated, and then only as an adjunct or part of a general tonic treatment.

Reducing Devices

Montgomery, Ward & Co., Inc., Chicago, has been ordered to cease misrepresentation of devices for use by women in attempting to reduce body weight.

Findings of the Commission are that the respondent, in the sale of "Ward's Posture-Aid Health Belts," "Diab Reducers," and "DuPont Velutex Perforated Reducers," represented that these products, when worn, would reduce excess flesh and accomplish other related results when actually, the wearing of the devices will not cause a reduction of local body tissue or effectively remove fat, although they will afford artificial support, lessen the prominence of pendulous abdomens, and change the physical appearance by compressing that portion of the body about which they are placed.

The Commission's order directs Montgomery, Ward & Co. to cease using the words "Health" or "Reducers" as a part of the designation for such devices sold in interstate commerce; to discontinue representing that the wearing of such devices will remove excess flesh; and that they will mold the abdomen gently or correct figure faults in excess of compressing that portion of the body about which the devices are placed and to that extent only improve the appearance of the wearer while the devices are actually being worn.

The respondent also is ordered to desist from representing that the wearing of the respondent's devices will correct pendulous abdomens or take two or three inches or any certain number of inches from the wearer's diaphragm and abdomen, and that the devices will make it easy for the wearer to reduce.

Stipulations

Hair Dye Claims

Alexander C. Brent, Jr., trading as Cuban Cosmetic Co., Chicago, agrees to cease the use in advertising of any representation or statement, such as "restores the hair to its natural color," which tends to convey to purchasers the impression that the preparation will restore gray hair to its natural color.

Hair Coloring Claims

Coffelt Chemical Co., Inc., New York, agrees to cease representing that "Coffelt's Never Failing Hair Coloring" nourishes or rejuvenates the hair, or, through use of the word "restores" or by any other means, that it restores the original or natural color of the hair.

Also the respondent will discontinue advertisements which fail to reveal that the preparation contains a metallic salt and should be used with care, and only if the scalp is free from abrasions, sores, cuts or infections.

Exchange
Citric Acid
U.S.P.
CRYSTALS · GRANULAR · POWDERED

MADE FROM AMERICAN LEMONS

Exchange Citric Acid is made by the world's largest lemon products plant in the midst of America's biggest year round supply of lemons.

CALIFORNIA FRUIT GROWERS EXCHANGE
PRODUCTS DEPARTMENT
ONTARIO, CALIFORNIA

189 W Madison St., Chicago — 99 Hudson St., New York

WAREHOUSE STOCK NORMALLY CARRIED IN NEW YORK CHICAGO, PHILADELPHIA, AND SAN FRANCISCO

Copyright, 1941, California Fruit Growers Exchange, Products Dept.

***Buyers "in the know" rely on the source with the "know how" of* CONTROLLED SPECIALIZATION.**

White Oils *Petrolatums*

For Details Write DCI-7

SHERWOOD REFINING COMPANY, Inc.

The Refinery of Controlled Specialization

ENGLEWOOD, NEW JERSEY · Refinery: WARREN, PA.

Minton's Asthma Remedy

Trading as Sarco Remedy Co., E. L. Bachman and V. E. Chambers, Sidney, Ohio, agree that in the sale of "Minton's Asthma Remedy" they will cease representing that the preparation will prevent, remedy or correct asthma or any underlying cause of it, or has therapeutic value in its treatment in excess of furnishing limited, temporary relief from paroxysms due to or associated with asthma.

A further representation which the respondents agree to discontinue is that Minton's Asthma Remedy is a preventive, remedy or cure for hay fever or a treatment for bronchial trouble in excess of its action as an expectorant in case of minor bronchial irritations, or that it has substantial therapeutic value in treating such disorders or will restore health.

The respondents agree that they will not disseminate advertisements which fail to reveal that their preparation should not be taken by persons ill of active or arrested tuberculosis or toxic goiter without first consulting a qualified physician; and, should nausea or skin eruptions follow its use, the dose should be reduced; provided, however, that the advertisement need contain only the statement "Caution: use only as directed," if the directions in the labeling contain a warning to the same effect.

The respondents Bachman and Chambers also stipulate that in their trade or brand names they will desist from use of the word "remedy" or any abbreviation thereof, or any other term, word or abbreviation the phonetics, spelling or appearance of which suggests that their preparation is a preventive, corrective or remedy for asthma, hay fever or bronchial troubles.

Triner's Tonics

Joseph Triner Corp., Chicago, agrees to cease representing that "Triner's Bitter Wine" will clean the stomach, prevent colds, and relieve insomnia, headaches, irritability or nerve disease; and that "Triner's Wine Tonic" will clear the system of accumulated poisons, restore appetite and digestions, assure sleep and maintain good health. The respondent also agrees to cease representing by use of the word "Tonic" in the designation of "Triner's Wine Tonic" that the preparation is a general tonic.

The respondent stipulates it will cease advertisements of its preparations which fail to reveal that there is potential danger in their use when abdominal pain, nausea, vomiting or other appendicitis symptoms are present, and that frequent or continued use may result in dependence on laxatives.

Rex-Lex Claims

Rex Remedy Co., Shelby, N. C., agrees to cease advertisements which fail clearly to reveal that "Rex-Lex," a headache remedy containing acetanilid and potassium bromide, should not be used in excess of the dosage recommended, since such use may cause dependence on a drug, and may also cause skin eruptions, mental derangement, or collapse; and that Rex-Lex should not be taken by, or administered to, children.

Nature Nervine

Valentine Greenewald, trading as Professor V. Greenewald, Covington, Ky., agrees to cease using the term "Nature Nervine" or any other name which implies that the preparation so designated is a remedy of nature or has beneficial therapeutic effect on the nerves or in the treatment of nervous disorders or conditions. The respondent also agrees to discontinue representing that the product is of any benefit in treating epilepsy, exhaustion, insomnia, stomach troubles and other ailments; that it forms blood, strengthens the nerves, builds the brain or promotes health, and that the preparation possesses any therapeutic value or affords any physiological effects except to the extent it may act as a stomachic and mild carminative.

Bulgarian Milk

Yoghurt Products, Inc., Seattle, Wash., agrees to cease certain representations of "Yoghurt Ferment Capsules" which is intended to be combined with milk to form "Bulgarian Milk."

The respondent agrees to cease advertising that its product of itself is Bulgarian milk; that the fluid which results from mixing its product with milk is healing, purifying or life renewing, or purifies the blood or energizes organic activities.

Further representations which the respondent agrees to discontinue are that the fluid which results from mixing its product with milk builds the body or will enable one to get well, keep well or stay young; is effective in destroying disease-breeding bacteria; arrests abnormal fermentation or decomposition, and restores or produces digestion or a rational appetite; and eliminates toxic poisons.

Complaints

Koch Laboratories

False representations of "Glyoxylide," "B-Q," and "Malonide Ketene Solution," are charged against Koch Laboratories, Inc., and William F. Koch and Louis G. Koch, officers of the corpo ration, Detroit.

The complaint alleges that the respondents have represented "Glyoxylide" as an adequate treatment for any type or stage of cancer, leprosy, malaria, arteriosclerosis, dementia praecox, insanity, epilepsy, tuberculosis, syphilis, arthritis, any type of allergy or infection, and other ailments; "B-Q" as an adequate treatment for all infections including gonorrhea, meningitis, infantile paralysis, septicaemia, streptococcus sore throat, pneumonia, malaria, coronary thrombosis, the allergies, diabetes, cancer, arthritis, and the degenerative diseases; and "Malonide Ketene Solution" as an adequate treatment for the allergic diseases, infections, diabetes, cancer, double pneumonia, osteomyelitis, and post operative meningitis.

According to the complaint, the respondents, through their use of the term "for allergy, cancer, infection" to refer to the properties of their medicines, have represented them to be of therapeutic value in the treatment of all infections, cancer and allergies when actually these products do not possess any therapeutic value and their use will not benefit any disease.

Agar in Agarol

William R. Warner & Co., New York, is charged with false advertisement of "Agarol." The complaint alleges, the respondent has represented that Agarol contains agar agar in sufficient quantity to have beneficial therapeutic effects in treating constipation, when actually the quantity of agar agar in the respondent's preparation is insignificant from a therapeutic standpoint.

The complaint also alleges that the respondent's advertisements are false because they fail to reveal that Agarol is a laxative containing phenolphthalein and is potentially dangerous when taken by persons suffering from abdominal pains and other appendicitis symptoms. Frequent or continued use, the complaint alleges, may result in dependence on laxatives.

According to the complaint, the respondent's use of the trade name Agarol, serving as a representation that the product contains agar agar in sufficient quantities to be helpful in treating constipation, constitutes false advertising.

INDUSTRY'S BOOKS

Marine Products Of Commerce, by Donald K. Tressler, Ph.D., 762 pp., Illus., Reinhold Publishing Corp., New York, Cloth, $12.

While this book was originally published in 1923, its subject matter is sufficiently interesting to warrant a second printing at this time without change or revision. It deals with the acquisition, handling, biological aspects, the science, technology, preparation and preservation of all marine products of commerce. Its purpose is to give the chemist and biologist a general survey of the fishery industries, pointing out their relative importance, indicating their location, and describing the methods in common use. Of particular interest to our own industry are the following chapters: Iodine and Potash from Seaweeds—European and Japanese Processes; Potash from Kelp—The Pacific Coast Industry; Edible Algae and the Agar-Agar Industry; The Manufacture and Utilization of Alginic Acid and Other Miscellaneous Vegetable Products From the Sea; Fish By-Products—Fish Oils; Liver Oils. This work is not the result of the author's knowledge of the subject alone, some seventeen collaborators having contributed chapters on the subjects of their special fields.

Annual Review of Biochemistry, Vol. XI, Ed., James Murray Luck, Assoc. Ed., James H. C. Smith, 736 pp., Annual Reviews, Inc., Stanford University, Cloth, $5.

With this volume, the Annual Review of Biochemistry enters upon its second decade. In view of present world conditions, it is rather remarkable that there has been little diminution in the scientific productivity of the free peoples of the earth, and that there has been little decline in the actual number of papers reviewed in this Annual. Contents of this Edition: Biological Oxidations and Reductions, E. G. Ball; X-Ray Studies of the Structure of Compounds of Biochemical Interest, M. L. Huggins; Hydrolytic Enzymes, Nonproteolytic, D. Glick; The Chemistry of the Acyclic Constituents of Natural Fats and Oils, T. P. Hilditch; The Chemistry of the Steroids, C. W. Shoppee; The Chemistry of the Proteins and Amino Acids, J. T. Edsall; Lignin, H. Hibbert; The Chemistry and Metabolism of the Compounds of Phosphorus, J. C. Sowden and H. O. L. Fischer; Carbohydrate Metabolism, M. Somogyi; Fat Metabolism, E. Chargaff; The Metabolism of Proteins and Amino Acids, H. H. Mitchell; The Chemistry of the Hormones, J. J. Pfiffner and O. Kamm; The Water-Soluble Vitamins, P. Gyorgy; Fat-Soluble Vitamins, R. A. Morton; Nutrition, A. G. van Veen; Calcium and Phosphorus Metabolism; Clinical Aspects, W. E. Cohn, E. T. Cohn, and J. C. Aub; Biochemical and Nutritional Studies in Relation to the Teeth, W. D. Armstrong; The Chemistry of Visual Substances, S. Hecht; The Chemistry of Muscle, G. A. Millikan; Avian Biochemistry, T. H. Jukes and H. J. Almquist; Animal Pigments, D. L. Drabkin; The Alkaloids, L. C. Craig; Mineral Nutrition of Plants, A. H. K. Petrie; Plant Tissue Cultures, P. R. White; Immunochemistry, J. R. Marrack; Microbiology, R. J. Dubos; Author Index; Subject Index.

A Treatise on the Law of Food, Drugs, and Cosmetics, by Harry Aubrey Toulmin, Jr., J.D., Litt. D., LL.D., 1422 pp., The W. H. Anderson Co., Cincinnati, Cloth, $17.50.

This is the first really comprehensive and authoritative work covering the far-reaching laws, regulating the manufacture, distribution, advertising and sale of foods, drugs, cosmetics, and soaps in the United States. Fundamentally, these laws deal with three primary propositions: (a) Adulteration of foods, drugs, and cosmetics (b) Misbranding of these products (c) False advertising of these products. This work analyzes, annotates, and explains the Federal Food, Drug, and Cosmetic Act of 1938 and related regulatory statutes, state and federal. Part One includes chapters on a brief legislative history of the Act, as well as chapters on the Definitions of Terms used in the Act; on Prohibited Acts and Penalties, including a discussion of injunction proceedings; on Adulterated and Misbranded Foods; on Adulterated and Misbranded Drugs and Devices; on Adulterated and Misbranded Cosmetics; on General Administrative Provisions; on Imports and Exports; on Effective Dates and Postponements, etc. The quotation of the respective sections of the 1938 Act is followed by the quotation of the regulation pertinent to that section, as well as by judicial opinions and rulings and Federal Trade Correspondence rulings applicable to these respective sections. Part Two deals with administrative procedure and problems of compliance, namely: Administration and Regulation; Administrative Procedure and Practice of the Food and Drug Administration in the Federal Security Agency; Problems of the Food, Drug,

and Cosmetic Industries Respecting the Preparation, Labeling and Packaging of Their Products. Part Three is devoted to false advertising of foods, drugs, and cosmetics, and the Anti-Trust Laws; The Wheeler-Lea Amendment to the Federal Trade Commission Act; Federal Anti-Trust Laws. Part Four includes State and Other Related Laws; State Legislation on Foods, Drugs, Devices and Cosmetics; Patent and Trade-Mark Laws: Foods and Drugs; Related Laws. The work will be kept to date by means of annual cumulative pocket supplements. By means of these supplements the user will always have before him the latest rulings and decisions as well as all amendments to the various laws. The work is carefully and scientifically indexed for easy reference and can be highly recommended for those in this industry who must work with the legislative requirements governing the trade.

Industrial Camouflage Manual, by Konrad F. Wittmann, A.I.A., 128 pp., Illus., Reinhold Publishing Corp., $4.

This Industrial Camouflage Manual represents many of the experiments and experiences that have developed in the classrooms and camouflage laboratory at Pratt Institute since the inception of the program in September, 1940. The material was originally intended for student use but soon embraced problems in the entire field of industrial camouflage. Because of the enthusiastic and widespread interest that early developed from many sources, it was decided to gather the more significant findings into a publication that could be shared by all. The Manual is not a book in the definitive sense of the word but rather a report of the activities to date of interested personnel at Pratt Institute to contribute to the all-too-meager study of this fast developing new area of the war effort. The work is divided into the following three main parts—Part I—New Aspects, New Requirements, New Programs: Part II—Industrial Camouflage Principles, Methods, and Materials: Part III—Demonstration on Models and Examples for Camouflage Practice.

A Manual of Pharmacology, Sixth Ed., by Torald Sollmann, M.D., W. B. Saunders Co., Phila., 1298 pp., Cloth, $8.75.

This Manual of Pharmacology aims to furnish a rather comprehensive outline of current knowledge and conceptions of drug actions, especially from the point of view of their practical importance in medicine, therapeutics and toxicology. Outstanding advances in the special fields of the sulfonamides, antimalarial agents, anesthetics and hypnotics, convulsants and anticonvulsants, synthetic autonomic agents, and in the borderland of hormones and vitamins, among others, have made necessary a complete revision of this well-known work. Practically every paragraph has been written anew and the book entirely reset. The general arrangement of the text has, nevertheless, been preserved. All the various actions of a drug are described under its heading. The text, as with previous editions, presents in ordinary type a fairly concise and connected story of facts and explanations that should be quite familiar to all students of the subject, for their direct bearing on medical practice or for a sound understanding; relegating to smaller type the data which would ordinarily be consulted only as special occasions arise. Authors are cited extensively to guide the inquirer to further information, rather than for the assignment of credit. Through these devices, the Manual may serve as a reference book as well as a text.

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For permanent emulsions of both fixed and volatile oils. Insures complete, homogeneous mixture without trituration or special apparatus. An ideal, trouble-saving, money-saving emulsifier.

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To make a dependable Syrup of White Pine Compound, N. F., standardize on Hopkins' Pinealco. Therapeutically reliable, uniform in color, odor and flavor. So highly concentrated, a single pound of Pinealco will yield about 20 pints of Syrup.

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A pure, natural Vegetable compound—semi-liquid, mucilaginous, free of objectionable over-adhesiveness. An economical substitute for such bases as Quince Seed, Gum Tragacanth, Irish Moss and Flaxseed for lotions, wave-sets, etc.

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Samples and quotations for any of these Hopkins' Specialties, upon request. We invite correspondence on any problems to which our technical staff can bring its expert cooperation.

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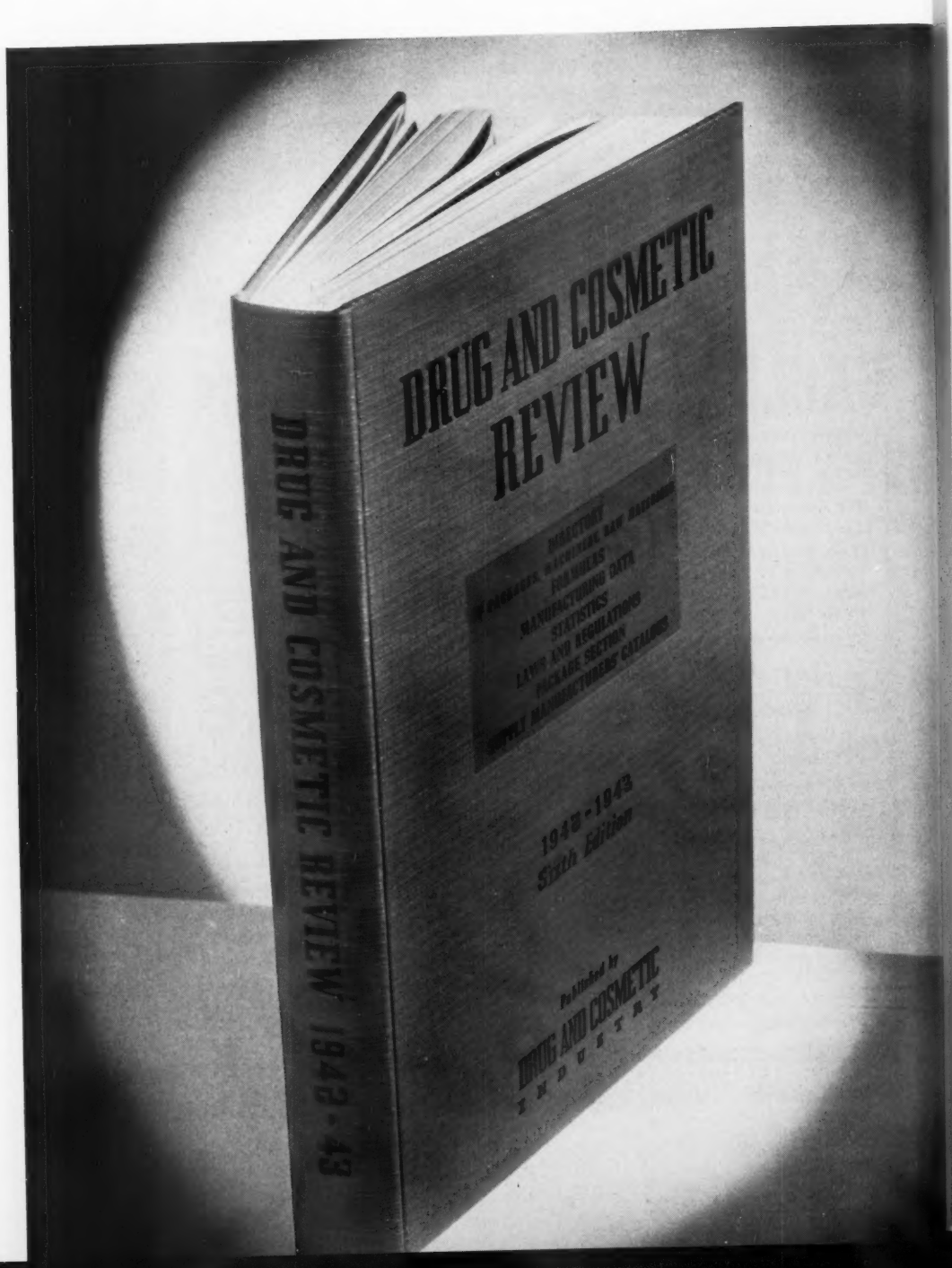


PRODUCTION FORUM

By FRANCIS CHILSON
Production Engineer

K RATION

In a previous article I mentioned the difficulty experienced by many manufacturers, especially cosmetic manufacturers, in getting contracts for military supplies. The equipment possessed by cosmetic makers limits them to the manufacture of a relatively narrow range of processed and packaged materials. They are perforce obliged to look for those items which can be assembled with manual labor. K Ration therefore offers a possible outlet for such manufacturers because the assembly of the component parts is purely a hand operation. The individual components are made and packaged by an approved list of food makers. All that need be done is to make up the complete field kit. Anyone who possesses conveyor belt tables can easily assemble the kits. Since the ultimate requirement will be for several million kits per day, there will be enough business for all who wish to go after it. As in every other case it is necessary to park on the door-step of the Quartermaster's office in Chicago. Up to the present, incidentally, this office appears to be favoring manufacturers in the Chicago area. This is probably due to a desire on the part of the office to make it easy to supervise closely the initial output until the project gets into its stride. However, the procedure involved is to obtain from the Quartermaster a list of approved supplies and suppliers, then obtain bids for the component parts and supplies. Following that it is necessary to submit a bid to the Quartermaster on the completed unit. You must therefore take full financial responsibility for the complete units. You cannot bid merely on the assembly job. Believe me the quantities are such that the financing of an order is not a piddling matter. It seems to me that only the larger manufacturers had better stick their necks out. Ideally of course each individual manufacturer should make and assemble all the components but very few manufacturers have the necessary equipment. It is needless to add that anybody who gets an order will be subjected to rigid sanitary inspection. But that's all to the good. Just to make you feel enthusiastic let me add that if you haven't already bid on K Ration you will find when you do that you are only one of ten thousand who has grasped at this straw.

JOBS AVAILABLE

A manufacturer of cosmetics and certain chemical products is looking for a plant manager. The job requires a chemical engineer with adequate experience, a co-operative personality and one who is under forty years of age. He should be a man who has planned production for and managed many people. He should be experienced in getting rush orders out on schedule. This is a swell job with a fine crowd. It is the sort of job in which a fellow who shows that he is production and cost minded will be left strictly on his own.

The pharmaceutical production job has not yet been filled. Neither has the chemical engineer's job in an essential oil plant been filled. I have not acknowledged the letters which came to me in response to previous notices because there were so many of them on the one hand, and on the other because my "right arm" joined the army. In short my secretary got married to a fine lad who is stationed to hell and gone out in the middle west. So at the moment this department is being laboriously hand wrought by the hunt 'n' peck method with many foul curses. As soon as I get hold of another capable "gel." I'll answer all letters promptly. In the meantime as interested parties' letters come in I'll sim-

Your Tablet Machines May Have To Last *for the Duration*

Your Stokes Tablet Machines are carefully designed and built. . . to give you long and economical service. We know of many that are still in use . . . after 25 years or more. We know of others in which neglect and abuse have caused needless wear and maintenance cost.

•

To make your present machines last for the duration . . . they must be kept clean, well lubricated, and operated at no greater pressures than absolutely necessary.

•

To help you instruct your men, especially your younger men, how to get maximum wear and service from tablet machines and punches and dies we have prepared an authoritative, pocket-size booklet which you will find most helpful.

We suggest you write for as many of these booklets as may be needed . . . to pass along to every man responsible for tablet machine operation and maintenance.

F. J. STOKES MACHINE CO.
5932 Tabor Road Olney P. O. Philadelphia, Pa.
Representatives in New York, Chicago, Cincinnati, St. Louis, Cleveland, Detroit
Pacific Coast Representative: L. H. Butcher Co., Inc.

F.J.Stokes TABLET MACHINES PHARMACEUTICAL EQUIPMENT FJS Est. 1895

ply pass them along to the proper people, who, if your qualifications seem applicable, will write to you direct.

THE FARM

The other day Fullerton Cook dropped in for a chat and in the course of our conversation he quoted the late Dr. Wiley whose favorite aphorism was "There are three kinds of farmer: the rubber tired farmer, the retired farmer and the tired farmer." Definitely I belong in the last category. Notwithstanding I have discovered the secret of running a farm successfully. First you buy a farm, preferably a big one with miles of fences to maintain and a tax bill blossoming in every bush. Second, you hire a farmer but preferably two or even three. Then you go up to the farm every week-end and do the work yourself. In the meantime the natives will look askance at you as a millionaire, a fool or a sucker and will charge you for incidental services rendered as though you were all three.

Nevertheless the farm is teaching me something about planning production. It is a highly competitive business dealing in enormous volumes with a minute profit margin. It is something to plan farm work because fifty jobs need doing all at once and then when you've got them all lined up the weather intervenes; your "expert" farmer busts your tractor all to hell or your cattle get into your neighbor's corn and your men spend a half day or more rounding them up and fixing fences. I always thought running a factory was something of a job but its a cinch compared with running a farm.

My boss farmer, as he calls himself, is also teaching me something about time study and motion analysis. The other day he was raking a lettuce bed in the garden with an old broken rake containing about six teeth. When I saw this I blew the cork because I had spent a couple of hundred dollars for all manner of small tools. I said to him, "You shouldn't be using that old rake. Use the new one. You can rake twice as much with it." Unperturbed he kept on raking with a slow, easy stroke. "Ain't no use to worry about that," he said. "I ain't got twice as much to rake." Incidents like this keep me from cutting his head off. On occasions I explain to him in detail exactly how to do a job with a minimum of effort. Whereupon with immense enthusiasm he outlines an even simpler method of doing the job and then promptly forgets about doing the job by any method. That's farming. I never thought I'd have to buy a farm to learn how to plan production.

NODRIP

If you have experienced difficulty from condensate dripping from water and refrigerant lines get in touch with J. W. Mortell Co., Kanakee, Ill. as they make a plastic cork coating which can be applied to walls, pipelines or tanks with brush, trowel or spray. It is claimed that the material can be applied without a priming coat to wood, tile, cement, metal, concrete or plaster surfaces. The material is black but can be overpainted with any color.

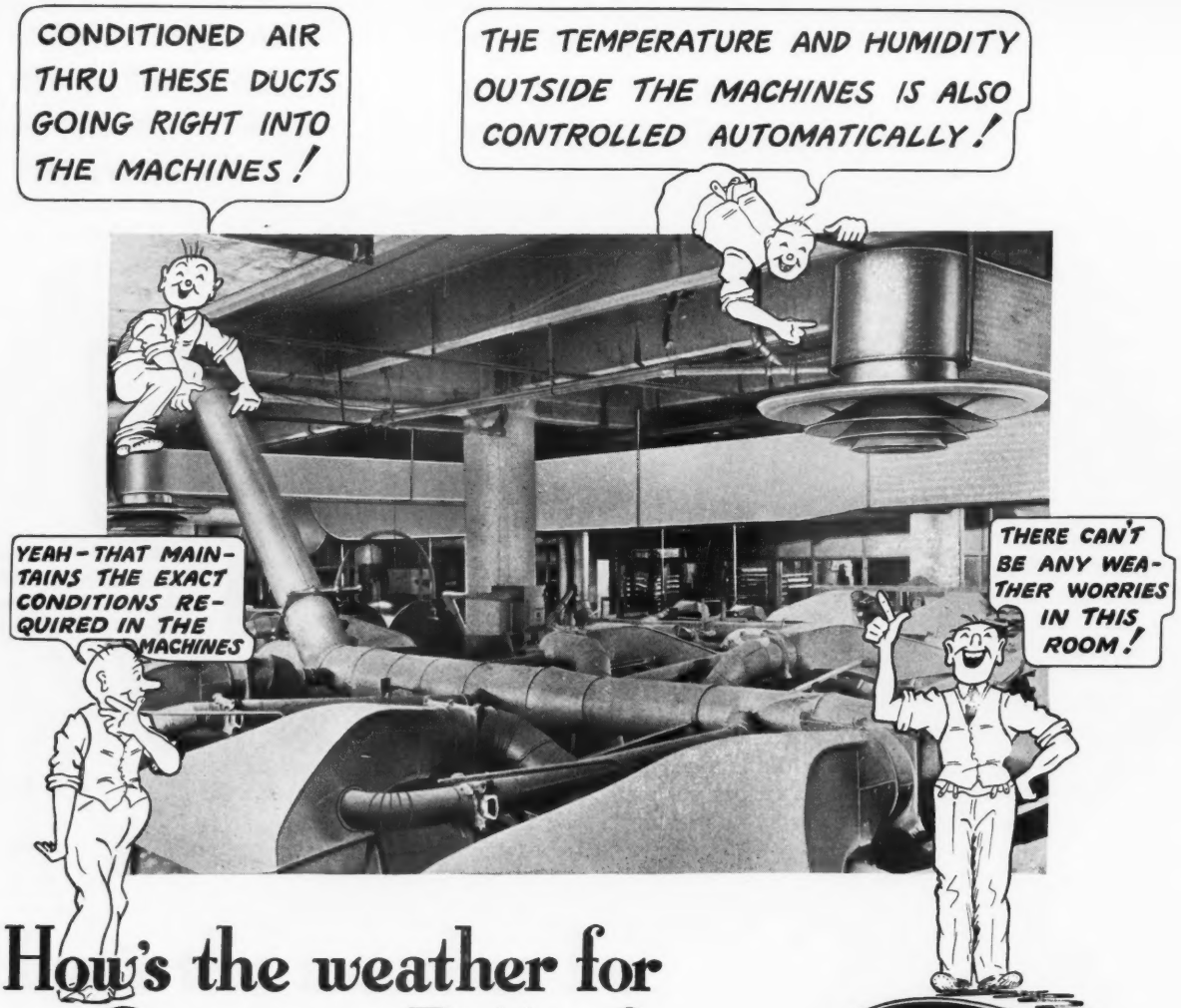
TIPS

F. J. Stokes Machine Co., Olney, P. O., Philadelphia, Pa. will send you if you haven't one already a booklet called "Tips" which contains many practical suggestions on how to keep tablet machinery operating at top efficiency. The booklet lists many practical suggestions on keeping machines clean to minimize abrasion due to dust; on keeping them properly lubricated (which unfortunately is not the rule among tablet makers); on avoidance of overloads to reduce excessive wear on punches and dies. This booklet is essential reading not only for tablet room foremen but for all tablet room employees who have anything to do with operating or maintaining tablet machines. Stokes will supply you with a quantity of them if you wish to distribute them among tablet room employees. Stokes also has published the address by Ronald Clarkson given before the production committee of the A. P. M. A. in February. Clarkson is director of the Stokes laboratory and his address is full of helpful hints to tablet men.

ANCIENT BOTTLING PRACTICES

It is funny how old time methods change imperceptibly until presently they are forgotten completely until someone does a little research and brings these practices, methods and machinery to light again. Several years ago the late Ernie Finch of the Karl Kiefer Co. told me a story about the early days of what is now one of the biggest firms in the industry. At that time Finch was asked to visit this plant to make recommendations on how to increase output. He did it somewhat reluctantly because he had never heard of the outfit and didn't suppose they had money enough to buy machinery. But he went and discovered that the company employed a great number of girls who were engaged in filling a greasy product by hand. The filling tables were arranged in rows facing the windows, which were open, and in consequence the place was filled with flies to a degree which caused Ernie to wonder how it was possible to avoid bottling them. He recommended of course a complete Kiefer packaging set up which to his surprise was immediately paid for and he also recommended the complete installation of screens to keep the flies out. Ernie said that a few weeks later he got a letter from the company saying that all his recommendations worked fine excepting the one about the window screens. They'd had to remove the screens because, as the girls chewed snuff, they couldn't spit out the windows! The company'd rather they'd spit out the windows than on the floors!

This reminiscence shows that even in early times we had some notion of sanitation! Those of you who are old enough to remember how bottles were washed in the cellar in a wooden tub or sink, which contained a shelf for a collection of bottle brushes, cleaning powders and solvents as well as a large can of bird shot for the more stubborn cases, and then allowed to stand around on open rack until the bottles were dusty and fly specked


CONDITIONED AIR THRU THESE DUCTS GOING RIGHT INTO THE MACHINES!
THE TEMPERATURE AND HUMIDITY OUTSIDE THE MACHINES IS ALSO CONTROLLED AUTOMATICALLY!
YEAH - THAT MAINTAINS THE EXACT CONDITIONS REQUIRED IN THE MACHINES
THERE CAN'T BE ANY WEATHER WORRIES IN THIS ROOM!

How's the weather for Coating Pills ?

Coating machines in modern drug plants can't wait for the right kind of weather. Machines must operate all day—every day. That applies to most other departments in drug plants too. It means correct air conditioning to maintain pre-determined atmospheric conditions—inside and outside of machines—regardless of prevailing outdoor conditions. It's a job for Ross engineers and their long specialized experience.

ROSS INDUSTRIAL Air Conditioning and Drying

Write for copy of our descriptive Bulletin 210

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enough for use, will enjoy reading "Fifty Years of Beverage Bottling" published free of Crown Cork and Seal Co. in celebration of the fiftieth anniversary of the crown seal. Beverage bottlers used much the same equipment in those days as we did and I am sure you like reading about the old filling machines, the old corkers and hand swung mallets. I am not yet an old timer, I hope, but I have seen some of these practices still being employed in plants in this trade within the last two or three years. Can it be that some of us still are following such ancient practices?

WASHER-MIXER

I make it a point to keep my weather eye peeled for equipment, which though intended for and introduced into other industries, can be adapted to ours. One such is the Solventol Washer made by Solventol Chemical Products Incorporated, Detroit. This washer is intended for washing machine parts with a special solvent produced by this company. Its design suggests its possible use as a dissolver, a liquid mixer or as a recirculating extractor. It might also be used for washing open mouthed laboratory glassware or jars. The device consists of a square tank with rounded corners. Within the tank is suspended a perforated double walled basket. Below the basket is mounted a high speed impellor. Rotation of the impellor sucks liquid down through the basket and its contents and throws it by centrifugal force against the outer wall. Here it is forced to rise in the annular space between the inner basket and the outer wall until it cascades over the top of the inner basket again. Double and single compartment units are available. Such is the speed of the impellor that it is claimed that a unit of ten gallon capacity will throw the equivalent of one ton of washing compound per minute. If that claim is true the machine handles the ten gallons a helluva lot of times per minute and it should be a good mixer.

FOG NOZZLE

To meet the demands for a variable, all-spray Nozzle, without a straight stream, a new water spray nozzle, the "Alfcospray," has just been introduced, according to the manufacturer, American - La France - Foamite Corporation, Elmira, N. Y. From the shut-off position, a slight turn of the tip immediately gives a cone spray of 40 degrees. Further slight rotation produces increasing cones up to full curtain of 150 degrees, with reversal back to shut-off without any intervening straight stream. This model finds favor with many public utility companies, as it prevents any possibility of a solid water stream being applied inadvertently on live electric circuits. The varying cones are also excellent for extinguishment of heavy oil fires, and for general cooling purposes.

The nozzle is known as Model 10F. It can be furnished for any 2½" hose thread, also for Underwriters' tip thread, 2" hose thread, or 1½" thread.

In the 40 degree spray position, the capacity is about 95 g.p.m. and 135 g.p.m. at 50 lbs. and 100 lbs. inlet water pressures respectively. The full curtain capacity at these pressures is approximately 170 g.p.m. and 215 g.p.m.

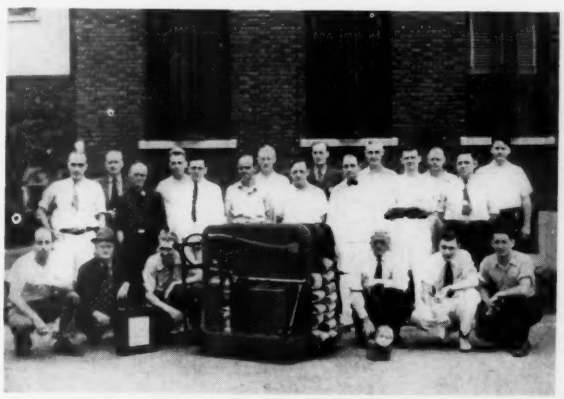
The Alfcospray nozzle in the full curtain position provides an effective water screen to protect men and property behind it. It proves more effective on Class A fires (wood, rubbish, textiles, etc.) with spray discharge, than straight bore nozzles, because the finely divided particles of water discharged in the form of a spray will allow absorption of a far greater amount of heat than a like quantity of water delivered in a straight stream.

The Alfcospray will cool and protect buildings, tanks and other structures that are menaced by exposure hazard. It will knock down heavy smoke, and dissipate poisonous fumes.

FIRE FIGHTING

"The Norwich Pharmacal Company, in order to speed up its plant fire-fighting methods, has built in its own carpenter and machine shops, the portable auxiliary fire truck illustrated below.

"The truck carries equipment which would be most useful upon reaching the scene of a fire: an axe, electric lantern, all-purpose smoke and gas mask, carbon



dioxide fire extinguisher, and two pack pumps. The truck also carries 200 feet of 2½" fire hose, which can be quickly and easily placed in service by one man, and a combination spray or solid stream nozzle attachment.

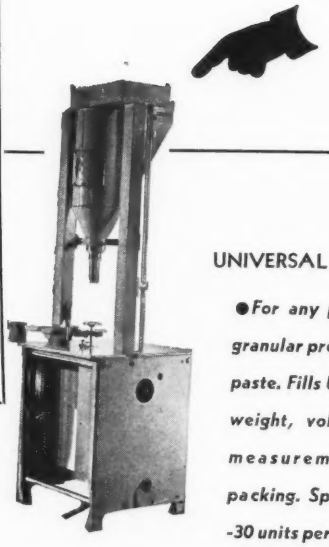
"Since the top floor and roof constitute the greatest fire hazard from incendiary bombs, the new equipment is kept on an upper floor. Fire drills using the new truck show time savings of over 60% as against the former method of carrying in hose from an outside truck."

MARRIED

George Lectrodryer Simpson was married on the third of June to a lovely lady, Bertha Sutton Meeder. That finishes him, the lovable ole cuss. No more meandering down Lexington Avenue at s'x A. M. after

ARE YOU WONDERING HOW YOU CAN PACKAGE IN GLASS OR PAPER?

Wartime restrictions on materials for containers may be causing you to alter the form of your products—more surely it will cause a change in your packaging. Perhaps we can help you make this transition. We have wide experience in building automatic and semi-automatic Filling, Packaging and Wrapping Machines for powders, pastes, granular and other free flowing materials. Consult us.

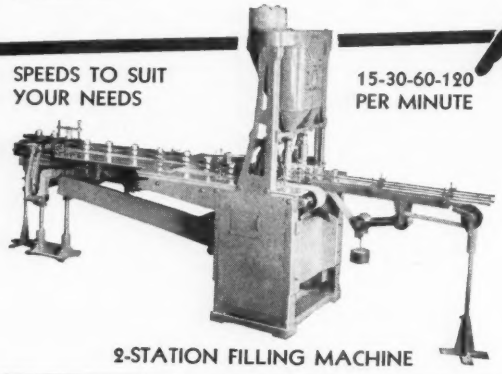


UNIVERSAL FILLER

●For any powder, granular product or paste. Fills by gross weight, volumetric measurement or packing. Speed: 15 -30 units per minute

SPEEDS TO SUIT YOUR NEEDS

15-30-60-120 PER MINUTE



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STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

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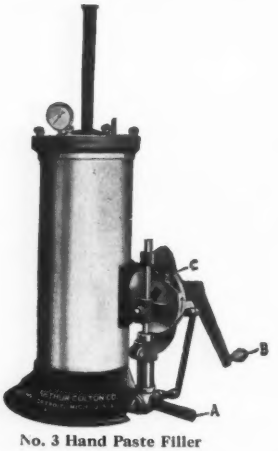
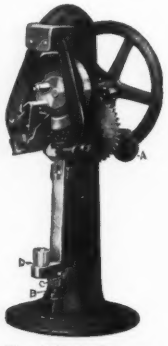


No. 3 Hand Paste Filler



Hand Tube Closer

Foot Power Crimper

Colton Hand Operated Machines

No. 3 Collapsible tube filler (hand operated) for tubes up to 1" x 5½" long.

Hand operated tube closer made in two sizes and styles to seal tubes with the Colton Clipless Closure or to seal tubes for applying clips.

Foot operated crimper for applying final corrugation to the closed end of the Colton Clipless Closure which gives it a decorative appearance as well as greater rigidity to the closed end of tube.

We also furnish this same machine without the crimping jaws for applying clips.

Our catalog No. 11 illustrates a variety of fillers and closers to suit production required. Please make us acquainted with your requirements and capacity, and we will be pleased to recommend machines best suited for your purpose.

ARTHUR COLTON COMPANY

2620 East Jefferson Avenue Established 1884 **Detroit, Michigan, U. S. A.**

a stiff night at the Chemical Show, or just after. Period. Paragraph. He'll go home nights just like I've been doing these many years. From now on he'll have to account for the presence of lipstick on his left ear. Although I haven't met the lucky lady yet I can sincerely testify to her that she cracked a swell egg.

PRIORITIES

At the moment you may need a lot of machinery that you never thought you'd need because your volume is greater than it has ever been. But wanting the machinery is one thing; getting it another. The priority system is slowly falling of its own weight because the amount of priority business has never in any way been related to actual or potential industrial capacity. Priority classifications were set up to stratify industrial orders in order of importance from a military point of view. But the issuance of high priorities has neither been consistent nor coherent. The result is that some manufacturers have enough AIA priority orders piled up to satisfy their full capacity for three or four months. As one machinery builder told me, "AIA priorities don't mean anything anymore. We've got a basket full so we just give them a date as they come in and turn out the oldest ones as fast as we can. So" he added "what the hell chance have my customers got of getting any spare parts let alone machines?" The unfortunate aspect of the situation is that some equipment builders are surfeited with high priority orders which they cannot turn out and others actually have little or no war business at all. Still more unfortunate is the fact that competition exists between various military and government bureaus and high priorities are issued for some items just because some officer or official thinks these particular items are more vital than anything else. In this regard WPB has not been as tough as it might have been. More unfortunate still is the fact that occasionally the army will send out an "expediter" to follow up an item in which a particular division is keenly interested. The presence of the "expediter" usually an officer of respectable rank is of course an implied threat to the manufacturer, who perforce, gives precedence to the order the office was sent to follow up. In one case with which we were associated, we were told that if we couldn't get needed materials within a week to call Washington and an officer would be sent to look into the delay. We got the materials. But at the same time we couldn't help but think we got them at the expense of other orders which it seemed to us were a hell of a lot more important. The bad aspect of the situation from the viewpoint of the equipment maker is that a day of reckoning is coming. He knows just as you do that some day peace will be declared. But he doesn't know whether you will stick with him and accept the equipment which you so urgently demand today or whether you will cancel your order with panic stricken haste when peace comes, as so many manufacturers did after the last war. In order to be fair to the equipment makers who have done so much to help you in the past and who will continue to help you in the future I think you should continue to place orders with them for delivery if and when the equipment can be built. I also think you should do more than that. I think you should pay for all or a substantial part of the cost of such equipment now. Then the equipment maker will know what orders he can depend on for post war delivery and also those which are likely to be cancelled. You can afford to pay for the equipment in advance. The risk is negligible. As a matter of fact if potential savings justify the purchase of the equipment they also justify paying for it in advance. If the possible savings don't justify such a course then don't place the order at all because you don't need the equipment.

Right after the last war I happened to have been connected for a short time with a large equipment sales organization in another field. In the course of four weeks cancellations of equipment orders which had been accepted in good faith by equipment builders amounted to more than five million dollars. These and other cancellations like them caused the panic of 1920 which you may remember, yet the subsequent industrial boom during the course of the twenties showed that the cancellations were unnecessary. If manufacturers generally had not run to cover like a bunch of panic stricken rabbits the depression of 1920 would have been avoided and a number of swell equipment organizations would not have been pushed to the wall.

CRUDE DRUGS

The interesting thing about crude drugs is that just when you feel that they are about to be made completely obsolete through the discovery of some new, miraculous sulfa compound or other chemical, along comes a new discovery in the drug field which makes you wonder whether anyone has ever done a real job of research into the mysteries of the vegetable compounds contained in all crude drugs. Nature seems to have a habit of storing her curative compounds in various drugs. Eventually we isolate the compound which exerts the curative effect and then sometimes we can synthesize it from chemical sources in a purer and cheaper form than it is found in nature. It is probable that because the extracts of certain drugs were used traditionally for certain purposes nobody has taken the trouble to find out if the same extracts or some of their compounds can be used for other purposes. This is probably due to the fact research generally is sporadic and local. Some firm or some research chemist decides to investigate the possibilities of a certain drug. A certain amount of time and money is allotted to it and presently the project is either successful or it is completely forgotten.

I sometimes wonder if research in important fields shouldn't be on an industry basis rather than on an individual basis. Chemists often get into the wrong rut and spend much time barking up the wrong tree. Several chemists working on the same problem in different localities and under different conditions would certainly

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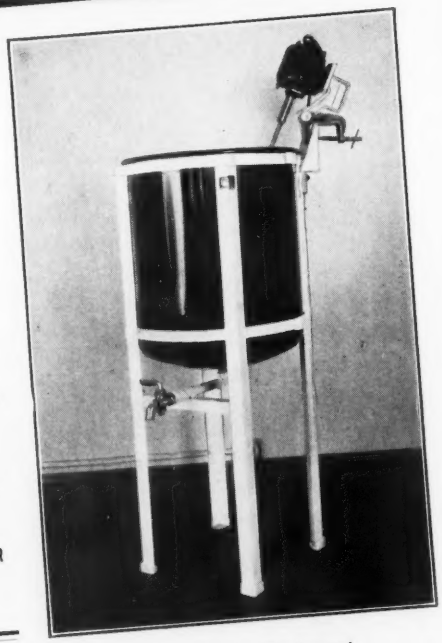

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be more productive than the individual worker. In the case of the soy bean this has certainly been the case. The list of things discovered in and made from soy beans to date is stupendous and the list is growing. The scientific committee of the drug associations have shown that co-operative endeavor pays, but their work usually has been limited to assay methods, procedures and scientific work for the pharmacopoea and the National Formulary and similar publications. I have seen many instances in which considerable time and money was spent to reach a certain end point which had already been reached by the chemists of other firms. There are limits to co-operation of course. Competition is still the life blood of business. And the government seems prone to look upon co-operative endeavors as violations of the anti trusts statutes but there is still a way of prosecuting research on a cooperative basis. In certain fields of military interest we are already doing it. Let's us hope that after the war we shall continue to co-operate on a broader industrial scale.

SECOND HAND EQUIPMENT

Friends on the west coast will be interested in knowing that a considerable store of second hand machinery is available at the warehouse of Morse Brothers Machinery Co., Denver, Colo. Although this firm specializes generally in mining machinery, it has on its list many items which are standard in this trade such as blowers, ball mills, air compressors, filter presses, steam boilers, generators, motors, pumps, and tanks. They also have a considerable line of machine shop tools and wood working equipment.

THE FUTURE

Everybody in the country is concerned about the future. This is one time when we can say with literal truth that the only things we are sure of are death and taxes. Not long ago in *Nation's Business* P. T. Cherington pointed out that increased wage scales and increased taxes were going to force a redistribution of wealth much more effectively than it could ever have been done by political fiat. When you come to think of it, this state of affairs will also effect a subtle change in the attitude of company officials toward stockholders. In the past labor has in many instances been unfairly treated and under paid because of the overweaning anxiety of company officers to make record profits so that liberal dividends could be paid. Now company officials need no longer fear directors or stockholders because they need make no excuses for failure to pay dividends. Taxes will be their alibi for a long time.

Notwithstanding, there is a constructive aspect to the tax situation; namely, that it will cause an immense increase in research. A good many companies have done comparatively little or no research at all because the expense involved would interfere with the payment of dividends or cause a bad showing on their statements for certain periods. Although it is true that when a research program is first launched it is likely to be expensive, in the long run it will pay out. In the future corporate officials, not having to worry about stockholders' complaints, will be more liberal with deductible expenses such as research expenses. Thus research will be augmented on a tremendous scale and in the end it will be the means by which the tax bill will be paid.

The reduction of dividends will mean of course in the immediate future a redistribution of wealth. "The malefactors of great wealth," as Teddy Roosevelt called them, are already doomed to extinction. Because of higher wages paid to labor and particularly skilled labor, the market immediately after the war will undoubtedly be very much broader in the lower stratas of society and in the lower middle class brackets. Profits will be low and because of this, there will be an imperative necessity to step up research as we mentioned above, and also at the same time to economize on all production and operating methods. This in turn will have the salutary effect of eliminating the old school tie from industry and it will kill off a lot of the birds whose chief claim to executive jobs is that they inherited them. Definitely the new era will be the Management Era.

FRITZSCHE GIVES GAS KIT

Fritzsche Brothers, Inc., New York, have developed a War Gas Identification Kit which they are presenting to State-appointed instructors in war gas identification with their compliments as a contribution of the firm to the war effort. The kit contains simulations of the odors of phosgene, Lewisite, mustard gas, chlorpicrin, and chloracetophenone, as well as a blower which enables an instructor to disseminate the odors as a fine

vapor. Also provided is a cleaning fluid to remove remaining odors from the blower between demonstrations of different gases.

Distribution of the kit will be handled entirely by the Office of Civilian Defense in Washington. Fritzsche Brothers is advising State Directors of OCD in all states to send in the names of their qualified instructors to Washington. Washington in turn will advise Fritzsche the names of those who are to receive the kits and the order in which the distribution is to be made from the point of the importance of each Civilian Defense section as an enemy target area.

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ANTIPERSPIRANT CREAM PATENT

In a patent suit brought by Wallace Laboratories against F. W. Woolworth Company, claiming infringement of U. S. Patent 2,236,387, the following facts were brought out. The Wallace patent covers the manufacture of Arrid, which is shown to consist of 21 per cent. of aluminum sulfate, 12 per cent. of urea, and the rest cream base. Hind's Deodorant Cream contains 17 per cent. of aluminum sulfate, 11 per cent. of urea, and the rest cream base. All but four of the sixteen claims listed in the patent were in suit, 4, 9, 10, and 14 being omitted. A typical claim in dispute was claim 12, "a cosmetic astringent preparation including aluminum sulfate as its essential astringent ingredient together with urea."

The court found that on the basis of prior use of urea to prevent action of aluminum salts on textile fabrics that the patent did not embody patentable invention.

This decision seems to throw open to general use the use of urea as a buffering agent to prevent the development of excess acidity in products containing aluminum sulfate. Thus, in formulating an antiperspirant cream, an acid stable emulsifier may be used to make a cream containing about 20 per cent. of aluminum sulfate and 10 per cent. of urea.

SOAP ANTIOXIDANT

SA326, a new antioxidant for soap, has been developed by Monsanto Chemical Company to replace antioxidants now unavailable because of raw material shortages. The new product is an organic amine made from raw materials which are currently available in plentiful quantities and which are not likely to be required in the war effort.

Antioxidants are used in many types of soap, particularly fine grades intended for toilet and bath use, to prevent oxidation and resultant rancidity and discoloration.

The new product is a light gray to white powder that does not affect color, odor or other characteristics. It is used in extremely small quantities varying from 0.04 per cent. to 0.01 per cent. on the weight of the soap, the recommended amount varying inversely with the titer of the soap.

SA 326 is basic in character and reacts with oleic, stearic and other fatty acids. Therefore it is added after these acids have been saponified. The addition may be made at any of several points in the soap making process: in the kettle after the liquors are drawn; in plodding; or on amalgamation or roller mills. The product may be introduced as an alcoholic solution, as a water slurry, or with other solvents.

ALUMINUM CITRATE

A six per cent. solution of aluminum citrate has all of the therapeutic properties of the five per cent. solution of aluminum acetate of the National Formulary, better known as Burow's Solution, and has none of its unfavorable qualities, according to Dr. Thomas Butterworth and Lee W. Wolfe of the Reading Hospital, Reading, Pa., in *Archives of Dermatology and Syphilology for March, 1942.*

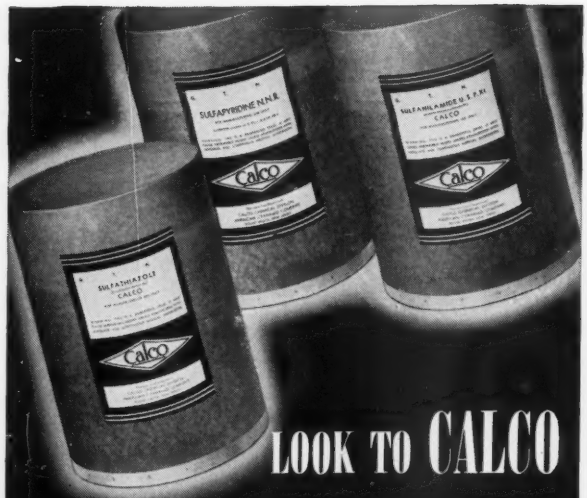
A substitute of constant composition which exhibits the favorable properties of solution of aluminum acetate, is easily prepared extemporaneously, and is less irritating, is a worthwhile addition to the dermatological armamentarium. Dr. Butterworth and Mr. Wolfe believe they have found such a substitute in aluminum citrate, used at present in deodorant creams and various foot powders. The 6 per cent. solution of aluminum citrate has been used for more than a year in the Reading Hospital Clinic and in Dr. Butterworth's private practice with excellent results. It is fully as effective as Burow's Solution, is more constant in its action and, although not tolerated in every case, complaints of irritation are much less frequent.

Aluminum citrate, $AlC_6H_5O_7$, is commercially available as a glassy crystalline substance which may be readily ground to a fine white powder. It is slowly soluble in cold water but very soluble in boiling water. A solution containing one kilogram per liter may be made using boiling water and the chemical does not crystallize out as the solution cools.

Since aluminum acetate has a molecular weight of 204 and contains 13.22 per cent. of aluminum, while aluminum citrate has a molecular weight of 216 and contains but 12.48 per cent. of aluminum, slightly more of the citrate must be used to secure the equivalent astringent effect of the acetate. Then, too, aluminum citrate contains approximately 10 per cent. of water. On the basis of these figures, a 6 per cent. solution of aluminum citrate contains approximately the same quantity of aluminum as Solution of Aluminum Acetate, N. F., which is a 5 per cent. solution.

SKIN CLEANSER

Hand cleansers may produce a tendency to occupational dermatitis owing to the removal of the superficial epithelium of the skin, defatting of the skin by



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solvents or changes in the epithelium by bleaching agents. The author recommends a mixture containing 50 per cent. of sulphonated castor oil, 2 per cent. of a wetting agent, such as duponol, santomerse or igepon, and adjusted to *p*H 7.2. This is a good cleanser and causes no defatting of the skin. The addition of 1 to 2 per cent. of trisodium phosphate increases its cleansing properties without rendering it irritant. This preparation has been used successfully in industry, and in eczema and defatted skins. When it is used by eczematous patients, the trisodium phosphate is not included. *L. Schwartz, Public Health Repts., vol. 56, p. 1788, 1941.*

SKIN PENETRATION

The penetration of oils, fats, emulsions and aqueous solutions through the skin of man, rabbits and guinea-pigs was studied. The extent of the penetration was observed by the fluorescence of the oils, with the aid of oil-soluble dyes and fluorescent substances, or dyes such as naphthol green B which may be detected in infra-red radiation; in certain cases, chemicals, such as copper sulphate or silver salts, which can be readily detected histologically, were used. Oils, fats and aqueous preparations did not penetrate the intact epidermis to an extent greater than one-third of the depth of the stratum corneum. Penetration took place by way of the hair follicles and sebaceous glands. Oleic acid and volatile oils had the greatest powers of penetration; animal oils, fats and waxes were somewhat inferior; vegetable oils showed still less penetration, and mineral oils had the lowest powers of penetration. Emulsification of the oils did not increase their penetration. The aqueous phase of emulsions was not absorbed and the type of the emulsion had no effect on the absorption of water-soluble materials. The *p*H of emulsions had no effect on skin penetration. *R. G. Harry, Brit. J. Derm. Syph. vol. 53, p. 65, 1941.*

BODY ODOR

Preparations used for counteracting body odor are divided into two classes: 1, deodorants, and 2, antiperspirants. Deodorants may be described as products whose sole action is to deodorize perspiration without affecting the functioning of the sweat glands. This may be accomplished by the application of perfumes or other chemicals. Perfumes are not satisfactory. There is the possibility that they may react with the perspiration and produce new compounds which may be even more malodorous. Usually it is necessary to use a sufficiently large quantity of perfume to disguise the disagreeable odor so that the perfume itself would be objectionable. The use of chemicals as deodorants is much more satisfactory.

The second group, antiperspirants, have a physiologic action but may also include an antiseptic action. They depend for the efficacy on their ability to inhibit the flow of perspiration by exerting an astringent action either directly or indirectly on the sweat ducts and glands. Caution, however, should be exercised in the use of astringents. Frequent use particularly of the aluminum salt solutions may ultimately destroy fabrics with which they come in contact. The same chemicals may also react with the fatty acids of the skin to form insoluble aluminum soaps which may be extremely irritating, causing a dermatitis and possible abscess formation.

To simplify the choice of the proper active ingredients, they may be classified as follows:

Deodorants (antiseptic in action): Sodium perborate, zinc peroxide, magnesium peroxide, oxyquinoline sulfate, salicylic acid, benzoic acid, and boric acid.

Antiperspirants (astringents): Aluminum chloride, aluminum sulfate, alum, aluminum acetate, menthol, camphor, and zinc sulfocarbolate.

Deodorant and antiperspirant: Formalin, formic acid, tannic acid, and zinc sulfocarbolate. *Joseph J. Eller, Medical Record, vol. 154, p. 167.*

BOTTLE STERILIZING DETERGENT

Sodium aluminate in association with magnesium sulphate is suggested as a detergent for milk bottles and beer bottles. Sodium aluminate appears to have the ability to flocculate suspended matter in the presence of magnesium sulphate. The solution has, therefore, less tendency to cling to the glass, and formation of a film of chalk in combination with casein, albumen and butter fat is prevented.

An example is:

	Parts b.w.
Sodium hydroxide	100
Trisodium phosphate	10
Sodium aluminate	2
Magnesium sulphate	0.25

Brit. Pat. 540,528.

INSECT REPELLENT

Ralston and Barrett investigated the repellent action of certain fatty acid derivatives on the housefly. The decyl, undecyl, undecenyl, and dodecyl alcohols and the aliphatic nitriles with 10 to 14 carbon atoms were highly repellent. In fact, undecylonitrile, lauronitrile, tridecylonitrile, and d o d e c y l alcohol proved more repellent than citronella oil. Large-scale tests with lauronitrile, which is nontoxic to human beings, are in progress.

SULFANILYLGUANIDINE

Anderson and Inuckshank assessed the value of sulfanilylguanidine for Flexner dysentery by giving the drug to alternate patients in a hospital for patients with mental disorders in which a severe epidemic began in December 1940 and continued, with intermissions, until June 1941. There were 130 adult patients, but as only those who had blood and mucus in their stools or for whom there was bacteriologic proof that they were suffering from Flexner dysentery were accepted for analysis the number was reduced to 96, of whom 41 were treated with the drug and 55 were untreated controls. The drug, in powder form, was suspended in water or milk. The amount was 9 Gm., given in three doses for two days and followed by the giving of 4 Gm. a day in two doses. If the diarrhea was not controlled within four days the maintenance dose of 4 Gm. a day was continued for one week. A liberal intake of fluid was insisted on during the period of chemotherapy. In a typical case of severe dysentery the patient's condition improved in twenty-four hours after his receiving the drug, and by the third day the patient was feeling much better, the toxic symptoms had disappeared and the appetite had returned. Bowel movements became much less frequent within two days, though blood and mucus often persisted for three to four days. Convalescence was much shorter than in the untreated patient. Treatment with the drug in the acute stage of the infection apparently prevented the convalescent carrier state, which was present in about half of the untreated patients. The combination of sulfanilylguanidine and the culture medium, which readily detects mild infections and convalescent carriers, may be instrumental in eliminating dysentery from hospitals for persons with mental disease. The drug could be used particularly in wartime, for the control of dysentery. *Brit. Med. J. vol. 2, p. 497, 1941.*

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CLASSIFYING ODORS

The grouping or classifying of many types of odors has not been very successful, since results differ with different persons. Henning considered that six groups were sufficient, these being spicy odors like cloves and sassafras oil, flowery odors, fruity odors, resinous odors like those of turpentine and Canada balsam, burnt odors like tar and pyridine, and foul odors like hydrogen sulfide. Zwaardemaker suggested eight groups as distinguishable, namely, ethereal or fruity, aromatic (with subdivisions of camphoraceous, herbaceous, anisic, and thymic), balsamic, garlicky, empyreumatic, caprylic, disgusting, and nauseous. Even more interesting is the classification of flower scents suggested by von Marilaun in his "Natural History of Plants" and modified by Hampton.

The indoloid group has a fetid quality exemplified by indole and stapelia. The Aminoid group has a stale, slightly sweet odor, examples being methylamine and hawthorne. Sweet and heavy odors are included in the heavy group and typical examples are benzyl acetate, methyl anthranilate, and jasmin. The aromatic group includes sweet and spicy odors such as eugenol, vanillin, cinnamyl alcohol, and carnation. The violet group is illustrated by ionone and violet while the rose group includes geraniol and rose. The lemon group of light and fresh odors includes citral and magnolia. Fruity odors are given by esters of higher fatty acids and alcohols. Unpleasant animal odors are exhibited by caproic and valeric acids and esters and by the lizard orchid. The sweet, but dry and musty odor of the milk and honey group is shown by farnesol and musk orchid.

WAR GAS SIMULANTS

Some of the more common war gases may be simulated to a fair extent by the following odor mixtures, useful for training purposes. Chlorine gas need not be simulated, the effect being obtained from dilutions of the gas such as are obtained from chlorine water or by the addition of a little concentrated hydrochloric acid to bleaching powder. Potassium dichromate and sulfuric acid added to chloroform, avoiding excess of the latter, gives the effect of phosgene. Chloropicrin is approximated by the use of chloroform in which hydrochloric acid gas or acrolein is dissolved. A little iodine dissolved in amyl acetate gives the same effect as ethyl iodoacetate. Mustard gas may be simulated by dissolving mustard oil and a little butyl sulfide in alcohol. Lewisite may be approximated by geraniol and geranyl acetate dissolved in alcohol. Traces of acetylene or a garlic preparation simulate arsine.

ATROPINE SUBSTITUTES

Among the synthetic substitutes for atropine are several valuable antispasmodics—including novatropine, eumydrine, syntropan and trasentin. Syntropan and trasentin are closely allied to the local anesthetics and actually have local anesthetic potency. Indeed, one may wonder whether the rapid relief of pain reported to occur when these two compounds are given orally to patients with peptic ulcer may not, in some measure, be due to a local anesthetic action. All four agents have been found effective as antispasmodics and one or the other has been successfully employed in the symptomatic treatment of a variety of clinical conditions, including the following: pyloric stenosis in infants, spastic dysmenorrhea, ureteral colic, urethral spasm, hypertonic urinary bladder, spastic dyskinesia of the gallbladder and biliary ducts, and gastrointestinal spastic states. The common denominator of all these conditions is smooth muscle spasm. The agents mentioned relax the spasm without producing the unpleasant effects of atropine or other belladonna alkaloids, such as dry mouth, mydriasis, and changes in cardiac rate.

OILY NOSE DROPS

Because of the danger of lipid pneumonia from the repeated intranasal use of preparations containing mineral oil, the Council on Pharmacy and Chemistry of the American Medical Association has withdrawn its previous acceptance of such products and has dropped them from New and Non-Official Remedies. In the absence of evidence as to the dangers of nasal preparations with vegetable oil bases, such products are retained.

UREA AND WOUNDS

Urea was used in the treatment of heavily contaminated wounds. The wounds were excised, washed free from foreign matter with normal saline solution, packed with urea and dressed as firmly as possible over rubber sheeting. In some instances, the treatment was combined with chemotherapy or the closed plaster method. The urea controlled infection and assisted in the removal of necrotic tissue. Satisfactory healing was obtained in eight cases and the cosmetic effect was excellent. *F. V. Slonham, J. Roy. Army Med. Corps, vol. 77, p. 240, 1941.*

Supply Problems in Drug Manufacture

(Continued from page 48)

ilarly ascorbic acid, niacin, and niacinamide have improved their availability in the last several months.

SULFA DRUGS

In this field we learn that this year's total production will run close to seven and one-half million pounds total for this class of materials to cover over-all production for ourselves and the United Nations under lease-lend operation. With such strides in the adoption and broadening application of these valuable drugs, it becomes obvious that there will be an accelerated falling off in the usage of certain classes of products heretofore used (particularly serums.)

So we see increasing problems in the finding of satisfactory alternate materials to replace those that have become tight, and gradual changes being wrought in the formulation of medicinal products based on the progressive tightening and growing shortages that have occurred. At the same time we see some exceptions to this trend where, as a result of War Production orders in one field, other materials become freed from heavy demand. Thus, curtailment of chrome plating releases potassium bitartrate.

CONTAINERS AND FINISHING MATERIALS

Coincidentally with the effects of tightening in the feld of crude drugs there has occurred at an even faster pace a series of shortages in the field of supplies for containers and finishing materials—tin being one of the most important since the Japanese invasion of the rich East Indian sources of this important metal. As a result we all know of the limiting orders placed on the use of the metal in collapsible tubes and tin cans. It is quite proper, therefore, that pure tin be limited for collapsible tube use in only those products where necessity requires. In the case of tin cans all classes of products deemed non-essential are eliminated from further use of tin plate. Thus we see in this one shortage alone a multiplicity of packaging problems and trends created within the short space of a few weeks' time that demand most serious attention. We see an evolution of the collapsible tube formerly consisting of pure tin to tin-coated lead or tin-lead alloy to silver-lead alloy tube provided with appropriate inside coatings adopted for the particular product in question. We see intensive researches in the field of non-metallic products such as plastics, impregnated papers, laminated cellophane and regenerated cellulosic materials all seeking an alternate use for tin in both collapsible tubes and containers of all types.

Since the problem of protective coatings for most classes of products heretofore packaged in collapsible tubes has been practically solved, their application in the case of non-metallic products seems equally logical. Nor should we lose sight of the fact that aluminum may again return in quantities sufficient for tube manufacture, in which event there would be immediate relief to consumers who have, in many instances, proved the suitability of inside coated aluminum tubes for numerous classes of products.

In the field of tin cans a double reason exists to find satisfactory alternate materials—

(1) Tin—because its proportionate consumption in tin cans is, at least, ten times as great in cans as in collapsible tubes.

(2) Sheet Metal for cans has become exceedingly tight as the requirements for steel now demand practically exclusive use for Army and Navy requirements.

Here again the use of appropriate coatings to replace tin had been developed many months before tin was realized a short material—and their application had been found successful in direct application to black metal in the packaging of numerous botanical drugs and medicinal agents required for pharmaceutical use.

CLOSURES AND LINERS

In the immediate future we have the problem of metal caps reflected by the heavy demand on sheet metal of all kinds for War Effort—and the natural trend in face of eventual limiting orders should be toward the plastic and cellulosic material where practicable and available.

In the case of limitations on tin, aluminum and other liner material, we find again a change over to impregnated paper materials. In a general way, therefore, the field of paper and fibrous cellulosic material is now subject to a wider and more intensive survey projected into the finding of alternates that will qualify as suitable to replace numerous uses in which metal alone had applied.

The accumulated technical data with respect to appropriate coatings that have found satisfactory application in the case of inside-coated collapsible tubes as well as metal containers should provide a substantial basis for their possible application in the case of paper and cellulosic materials. With such development has grown the necessity for development of practical accelerated tests that will determine as quickly as possible the suitability of new materials. And so, we have paper now as a basic material that holds greater promise of application in combination with appropriate coating and laminating materials.

GLASS CONTAINERS

With the trend away from metal containers where curtailment of tin plate and even black metal prevails, has grown the trend toward the adoption of glass containers, bottles, jars, etc. Here again arises a situation where productive capacity of the glass plants as well as the supply of Soda Ash are the chief limiting factors. Soda Ash, is ordinarily an extremely abundant material but one in extraordinary demand for both glass and aluminum at this time.

To extend the production of glass containers, a program of simplification of sizes and mould design is now in progress with the objective of bringing about increased unit production of containers with lessened quantity of glass and minimum of lost time in change over in moulds.

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ADVANCING THERAPY

SULFADIAZINE FOR COLDS

Tests on two groups of children at Letchworth Village, N. Y., conducted by the recently founded Public Health Research Institute of the City of New York, offer promise that respiratory diseases such as the common cold, bronchitis and pneumonia may be effectively checked and also prevented by the administration of sulfadiazine in the early stages of the infection. The tests, carried out during an epidemic of colds and other respiratory infections last Winter, are described by Dr. Morris Siegel of New York in the current issue of The Journal of the American Medical Association, out today.

The trials were carried out on children who were highly susceptible to respiratory infection and who usually had an annual pneumonia incidence of more than 10 per cent., Dr. Siegel reports. One group of these children was treated with sulfadiazine on the very first day a sore throat or other symptom of cold appeared, while the other group received the usual treatment without sulfadiazine.

"It was found," Dr. Siegel reports, "that most of the patients receiving sulfadiazine improved after twenty-four hours. A few had a secondary rise in temperature seventy-two hours after premature withdrawal of the drug and some showed no evidence of improvement.

"For the first twelve hours after treatment was begun there was often no perceptible difference between treated and control cases. Within twenty-four to thirty-six hours, however, there were usually signs of improvement in the treated group. Signs of infection, such as coryza and cough, still persisted in many cases, but the infection appeared to be subsiding as if the inflammation had abruptly passed the acute stage.

"On the whole, the infection usually appeared to be checked within twenty-four to forty-eight hours after administration of the drug and usually remained under control.

"Judging from these preliminary observations among highly susceptible children, it appears that sulfadiazine can be advantageously employed early in the course of many respiratory illnesses. In some cases such a procedure might be an early form of therapy, in others a prophylactic measure."

BABY OIL DERMATITIS

Hydroquinone, used as an antioxidant in antiseptic baby oils to prevent rancidity, is a substance with a high index of sensitivity from the dermatological standpoint and the routine use of such oil, in the case of infants, over a long period of time should be under careful control, according to Dr. Joseph H. Lapin, in the American Journal of Diseases of Children.

Dr. Lapin recently has had six cases of babies under three months of age with patchy, erythematovesicular dermatitis. In every case the mother had been using antiseptic baby oil on the baby's face. Omission of the oil and the application of a bland ointment cleared up the condition promptly.

Dr. Lapin patch-tested the six infants for 48 hours and all showed positive reactions. He then patch-tested 30 newborn infants and only one gave a positive reaction. From this, it is believed that there is a definite period during which an infant's sensitivity to hydroquinone increases with each application of the baby oil until, after a few months, the sensitivity is manifested by a dermatitis.

Editor's note: Judging only from the above abstract, which may not contain all essential information, it seems to us that Dr. Lapin may be looking too far for the cause of the dermatitis he treated. Although it is known that hydroquinone is a sensitizer, and is present in some baby oils as an antioxidant, it is not true that all oils contain hydroquinone. Only those preparations based upon vegetable oils need this type of preservation, mineral oils being perfectly stable. It seems far more likely that the active cause of the dermatitis would be the antiseptic and possibly the perfume used in the oil.

SULFONAMIDE DETOXIFICATION

The sulfonamide drugs, although among the most effective therapeutic agents available, have undesirable toxic side-actions which in many cases limit their use. On the theory that the process of aiding the body in its fight against infection by administering sulfonamide compounds also gives the body toxic chemicals which it must detoxify, Drs. G. J. Martin, C. V. Fisher and M. R. Thompson, of the Warner Institute for Therapeutic Research, New York City, are studying the possibilities of reenforcing the body's natural processes of detoxication.

The authors have given mice and other animals therapeutic doses of sulfanilamide, sulfapyridine and sulfathiazole with simultaneous doses of aminoacetic acid, choline, cystine, glucuronic acid, glutamine, ascorbic acid, sulfates, acetates, ornithine, and many other substances.

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In the case of sulfanilamide, the acute toxic effects of the drug have been reduced as much as 40 per cent. by the simultaneous administration of either calcium glucuronate or a combination of aminoacetic acid, cystine, calcium glucuronate and ascorbic acid. The administration of these substances not only did not decrease the efficacy of the sulfanilamide, but slightly increased its effectiveness against hemolytic streptococcal infections. Absorption of the drug was increased by approximately 10 per cent.

The simultaneous administration of either aminoacetic acid or ascorbic acid decreased the toxicity of sodium sulfapyridine by as much as 50 per cent. with no decrease in therapeutic effect or absorption.

Cystine or aminoacetic acid reduced the toxicity of sodium sulfathiazole by as much as 50 per cent. without affecting the therapeutic efficacy or absorption of the drug.

This work, thus far conducted on both laboratory animals and many clinical patients, offers tremendous potentialities for clinical application in extending the usefulness of sulfonamide drugs by reducing the incidence of toxic reactions accompanying their use. *Arch. Int. Med., vol. 69, p. 662.*

ATHLETE'S FOOT TREATMENT

Mixtures of equal parts of phenol and camphor, or of three parts of phenol with one part of camphor, which have been suggested for the treatment of athlete's foot, are capable of causing great injury to the skin and are too dangerous to permit their indiscriminate distribution to the public for self-medication, according to the opinion of the Food and Drug Administration of the Federal Security Agency, Washington, D. C. Such mixtures are considered as "dangerous drugs" for which it is impossible to devise adequate directions for use and warnings against misuse to meet the labeling requirements of the Federal Food, Drug and Cosmetic Act and they may, therefore, be dispensed by the pharmacist only on the prescription of a physician. Even when dispensed on prescription, the Administration believes that they should be labeled with warnings against their use on moist skin and patients should be cautioned to stop their application if the skin shows signs of burning or necrosis.

The Food and Drug Administration has had its attention called to the matter by an actual case of severe injury resulting from the use of one of the mixtures. The person applied it to a rather large area on the leg, near the ankle, and a necrotic area developed which required several weeks to heal. Dr. Herbert O. Calvery, Chief of the Division of Pharmacology of the Food and Drug Administration, made a study of the mixtures on rabbits and found that the 1 to 1 mixture on dry skin produced irritation and erythema particularly after repeated applications, and when applied on moistened skin it produced a severe burn with a necrotic eschar after the second application. When the 3 to 1 mixture was applied to dry skin, there was a severe burn even after the first application, and particularly after the second application, followed by a necrotic eschar. When the area was moistened the reaction was much more severe.

ATHLETE'S FOOT NON-CONTAGIOUS

Fungous infections of the feet and groin, commonly known as Athlete's Foot, are rarely, if ever, contagious and the harsh prophylactic measures widely used in the home, the swimming pool and the gymnasium are not only illogical and serve no useful purpose, but are potentially harmful to the skin, according to Drs. Marion B. Sulzberger and Rudolf L. Baer, of the Dermatological Service, Montefiore Hospital for Contagious Diseases, New York City, and Dr. Rudolph Hecht, of the Department of Dermatology, University of Illinois College of Medicine, Chicago.

These dermatologists state that they personally have never believed that Athlete's Foot was contagious and, therefore, they have never given directions to their patients to guard against giving the disease to other members of their households, and they have recorded no case of familial or conjugal transmission of the disease in their respective practices in the past ten years. To check their ideas they sent questionnaires on the subject to a group of outstanding dermatologists and out of 88 replies covering many thousands of observed cases, only four cases of proved transmission of the infection were reported. This question is of immediate importance to the military personnel, as well as the civilian public, and the evidence indicates that the rare occurrence of transmission of Athlete's Foot from one person to another is of little, if any, practical importance.

The authors believe that everyone carries pathogenic fungi in quiescent foci on the feet, beneath the toenails, and in the groin and that acute attacks of Athlete's Foot are caused by a lowering of the individual's resistance to his own germs.

Prophylactic measures which stress personal hygiene of the feet should be recommended but "the often difficult, disagreeable, expensive and potentially skin-damaging prophylactic measures" should be avoided, they state. *Arch. Derm. & Syph. vol. 45, p. 670.*

SULFATHIAZOLE EMULSION

Drs. D. Ackman and G. Wilson, of Montreal, have developed a 5 per cent. emulsion of sulfathiazole for use as a wet dressing in the treatment of wounds, abscesses, burns, ulcers, carbuncles and in gynecological surgery. The formula of the emulsion is as follows:

Sulfathiazole (finely powdered)	5
Triethanolamine	2
Distilled water	24
White beeswax	5
Liquid petrolatum	64

Melt the beeswax in the liquid petrolatum on a water bath. Mix the triethanolamine with the water and heat to the same temperature as the petrolatum-wax mixture. Mix the sulfathiazole with the triethanolamine solution and add the petrolatum-wax mixture, stir vigorously until a creamy emulsion is obtained.

Wounds and ulcers are packed with gauze which has been soaked in the emulsion. The preparation keeps the walls of the cavity oiled, preventing the adherence or clothing of lymph. Loose packing over the emulsion-soaked gauze permits constant drainage and the packing need not be removed for several days. It is readily removed with little discomfort to the patient. *Can. Med. Assoc. J. vol. 46, p. 209.*

LOCAL ANESTHETICS

3-Nitrophthalic anhydride was converted into an acid 2-alkyl 3-nitrophthalate by esterification with an alcohol; the mono-ester was treated with a dialkylaminoalkyl chloride to form a 1-dialkylamino-alkyl 2-alkyl 3-nitrophthalate hydrochloride and the nitro group of the di-ester was then reduced with stannous chloride and hydrogen chloride in acetic acid solution. In this way Blicke and Otsuki prepared a series of 1-dialkylaminoalkyl 2-alkyl 3-aminophthalates. Blicke and Castro prepared a series of 1-alkyl 2-dialkylaminoalkyl 4-aminophthalates in a similar manner from 4-nitrophthalic anhydride and by the following procedure. 4-Nitrophthalic anhydride was treated with a bromohydrin and the mono-ester was converted into the ester acid chloride; this

(*Continued on page 107*)

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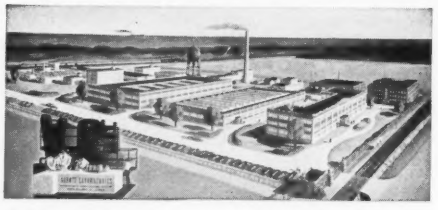

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Advancing Therapy

(Continued from page 101)

interacted with an alcohol to form a bromo di-ester which was treated with an aliphatic amine, and finally the nitro group was reduced. Many of the 1-dialkylaminoalkyl 2-alkyl 3-aminophthalates were more active than cocaine in producing corneal anesthesia in rabbits; the di-esters of 4-aminophthalic acid were less active. Salts of 1-(β-diethylaminoethyl) 2-amyl 3-aminophthalate and of 1-(β-diethylaminoethyl) 2-hexyl 3-aminophthalate were found to be very strong local anesthetics. *J. Am. Chem. Soc. vol. 63, p. 2435, 1941.*

MAGNESIUM SULFATE THERAPY

Nolting and Caso treated 50 pregnant women with acute and subacute vomiting by intravenous injections of 1 or 2 cc. of a 50 per cent. magnesium sulfate solution in 10 or 20 cc. of physiologic solution of sodium chloride. The patients were in the first three months of pregnancy. Vomiting was controlled early in the course of the treatment in 32 cases. In 18 in which vomiting diminished but was not controlled within ten days two daily intramuscular injections of 5 cc. of a 15 per cent. magnesium sulfate solution were administered, one an hour before breakfast and the other an hour before supper, for ten more days. All the patients were cured and were able to tolerate pregnancy up to term. The treatment is harmless, well tolerated and effective. Failing heart constitutes the sole contraindication. *Bol. Soc. Obst. y. Ginec. vol. 20, p. 670.*

For Seasickness: Poch injected intramuscularly a solution consisting of 1.25 Gm. of magnesium sulfate, 0.05 Gm. of caffeine and 0.25 mg. of atropine. The injections were given at intervals of twelve hours. As a rule two injections were sufficient; in rare instances a third injection was required. The observations were made on healthy sailors subject to a severe form of seasickness. The symptoms greatly diminished within the first four hours after the first injection and were controlled by the second injection. In a few cases in which nausea persisted it was controlled by the third injection. Arterial blood pressure promptly returned to normal. The patients were able to continue at work. There was no recurrence. The injection produced a moderate amount of pain, which lasted for several hours. *Dia Medico, vol. 13, p. 798.*

MOLD ANTISEPTICS

From the *Bacillus brevis* grown on peptone medium a substance named tyrothricin has been isolated and separated into its components, gramicidin and tyricidin, both of which have been shown to possess marked bactericidal activity for grampositive organisms. Both of these products have been shown to be polypetides, and the amino acids present have been listed. All three substances have already been tested and gramicidin has been shown to be active *in vivo*, whilst tyrothricin has been used locally on a number of cases of infections by gram-positive organisms with marked beneficial effects and no signs of toxic action. Gramicidin, however, appears to have a powerful hemolytic action on erythrocytes *in vitro* which may limit its use.

Another new antiseptic is actinomycin, obtained from a streptothriae, the *Acilmonycis antibioticus*, whilst from the *Penicillium citrinum* citrinin has been isolated, and from *Penicillium puberulum* and *Penicillium cyclopium* penicillic acid, a substance quite distinct from penicillin, about so much has been heard lately. Both citrinin and penicillic acid are less active, as far as the *in vitro* tests are concerned, but have the advantages of being more easily obtained in fairly large quantities. A further advantage of penicillic acid is the fact that it is antagonistic to gram-negative organisms and intestinal bacteria, as well as to gram-positive organisms. In all, some fifty substances have been isolated from cultures and their chemical constitution studied, and in some cases they have already been synthesized.

HEAD LICE

For the cure of pediculosis MacHaffie recommends 15 per cent. of lethane (n butyl-carbitol-thiocyanate) in deodorized purified kerosene. One treatment applied to the head without a towel covering kills nits and lice immediately. The head is not to be shampooed for a few days. The cost per head is not more than 2 or 3 cents. *Can. Public Health J. vol. 32, p. 606.*

SIX HOUR PREGNANCY TEST

Salmon and his associates describe a six hour test for human pregnancy which is based on the observation that the chorionic gonadotropin causes a decided hyperemia of the ovaries of immature rats. The hyperemia is grossly discernible six hours after the injection of urine from pregnant women. *J. Chin. Endocrin. vol. 2, p. 167.*

DISINFECTANT DETERGENT

Cetyltrimethylammonium bromide (called CTAB) has been shown to be efficient for skin cleansing and for materially reducing the number of bacteria present on it, in investigations carried out by J. M. Barnes, M.B., at the Sir William Dunn School of Pathology, Oxford.—*Lancet, 1942, 6192, p. 531.*

CTAB is one of a large group of synthetic detergents widely used in industrial processes belonging to the group of cationic detergents.

Clinical experience shows it to be painless and apparently harmless when applied to raw surfaces. Its use, therefore, concludes the author, will provide a good substitute for the soap-and-water technique for treating dirty wounds. "It is probably as active a germicide as any of the disinfectants commonly used for the preparation of the skin before operation, and could therefore replace spirit or the dye preparations favored by some surgeons."

VITAMINS AND FATIGUE

The average daily intake of vitamins per man on garrison rations was found to be 1.7 mg. of thiamine chloride, 2.4 mg. of riboflavin, and 70 mg. of ascorbic acid. There is no indication from studies that supplementation of these vitamins has any effect, favorable or otherwise, on muscular ability, endurance, resistance to fatigue or recovery from exertion in either brief extreme exercise or in prolonged severe exercise and semi-starvation.

It is concluded that no useful purpose would be served by enrichment of present U. S. Army garrison rations with the vitamins studied. *J. Nutrition, vol. 23, p. 259.*

NEW HYPNOTIC

Twenty-four new drugs, the 5: 5-disubstituted-2: 4-oxazolidinediones were tested. Most had a very short anesthetic effect, some were convulsant but one of them, 5: 5-di-n-propyloxazolidinedione seemed to merit further study. It was given orally, rectally and intravenously as a sodium or calcium salt and all stages of anesthesia and hypnosis were obtained. A full anesthetic dose in dogs produced a short period of anesthesia followed by a period of hypnosis up to 60 or 70 hours. A small series of patients were given the drug without ill effect. *R. W. Stoughton and J. H. Baxter, J. Pharmacol. vol. 73, p. 45, 1941.*

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READERS' QUESTIONS

TOOTH PASTE: As a subscriber to your magazine, I read with great interest the articles you publish monthly. You recently gave some information about tooth pastes which I found to be especially interesting, since I intend marketing one. I have tried several formulas, using tragacanth or starch glycerite as the binder. Since I was afraid that I would not be able to continue to get the high quality gum I wish to use, I have decided to use the glycerite of starch. I include sulfanilamide in my formulas.

The formulas are of good consistency and seem to keep well, but I am not satisfied with the quantity of lather they give. Moreover, the paste seems to become liquid in the mouth and lose its pastiness. I have increased the soap in order to improve the lathering power, but with little effect. Could I use saponin or some similar material to increase foaming? I would very much appreciate your help with this problem. Venezuela.

Consistency depends upon the amount of solids present in the formula, and the ones you give have only about thirty-five per cent. of precipitated chalk or other polishing agent. Total solids should not be less than forty per cent. and fifty per cent. is often used. With this large total of powder, it is very difficult to obtain a smooth product unless very thorough milling is done.

As to the lather, this depends not only upon the amount, but also upon the quality of the soap used. Obtain from your supplier those grades of soap with greatest lathering power and try them in your dentifrice. Saponin has an extremely bitter taste and is also quite poisonous, so that it should not be included, even in small quantities, in a tooth paste. Other synthetic detergents may be used in place of, but not along with soap.

Finally, your inclusion of sulfanilamide in the tooth paste is a serious error. The sulfonamides are extremely powerful drugs with many toxic reactions, and should be used only where it is thought they may serve a definite purpose. It is doubtful that sulfanilamide has any oral prophylactic action. It is even possible that long continued use of tooth paste containing sulfanilamide may itself be apparently harmless, but result in severe toxic reactions through the phenomenon of sensitization, when larger doses are taken for specific curative effect.

PEARLY HAND LOTION: We are interested in developing a process for manufacturing an extremely pearly hand lotion, using the conventional Stearic Acid—KOH formula. How can pearliness be developed in such a lotion without the long and tedious aging process? Is there a way of making Stearic Acid crystallize without aging? Dallas.

The development of pearliness always takes time, but there are certain stunts that are useful in shortening the time and improving the quality of the luster developed. A small amount of alcohol, about 5%, promotes the development of crystallization as do some of the glycol derivatives. This solution is not as good as it might be because of the priority situation with these materials. The use of stearic acid containing a small amount of oleic acid also promotes and improves pearliness. This oleic acid may be added as such to pure stearic acid or double pressed stearic acid may be used in place of the triple pressed grade. Finally, the presence of Amino Glycol in place of potassium hydroxide has considerable effect in improving the pearliness developed without causing discoloration. Storage of the finished lotion in a warm place also promotes crystallization.

SCALP ANTIPERSPIRANT: I am interested in getting some information about a product I have been making and using for sweating scalps. The mixture I have been using contained petrolatum, mineral oil, alcohol and salicylic acid. The alcohol does not seem to mix well with the oils and about half of it is left at the bottom of the mixing pot. Can you tell me how to improve this product or make a better one? Mobile.

Castor oil is the only common oil that will mix with alcohol, so it is natural for you to have trouble with the unbalanced formula you are trying to prepare. The alcohol is useful only as a solvent for the salicylic acid; since this is the case it should be possible to omit it entirely. Mix the salicylic acid thoroughly with the mineral oil and then mix thoroughly with the petrolatum, either solid or liquid.

You will get better antiperspirant effect by the use of an astringent aluminum salt in place of salicylic acid. Mill together 5 to 10 per cent. of aluminum sulfate or aluminum sulfocarbolate with your petrolatum-mineral oil mixture until a smooth, homogeneous paste results. Perspiration from the scalp will extract the aluminum salt from the paste, dissolve it, and the solution will then act as an astringent to stop further sweating.

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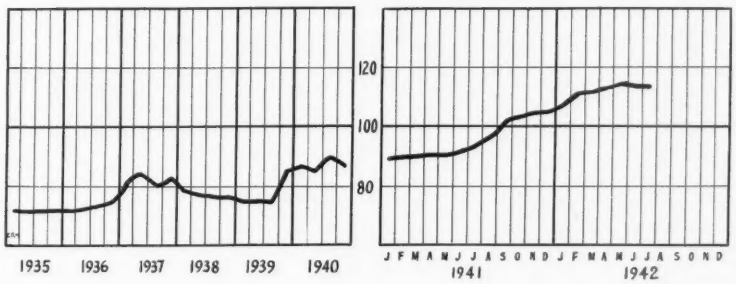
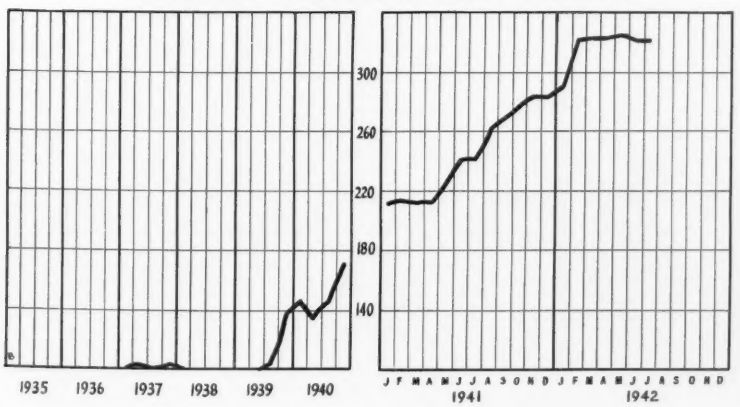
Anise oil 30c
Arabic gum, sorts 2½c
Buckthorn bark 20c
Burdock root 3c
Cade oil 15c
Cajuput oil 40c
Canaga oil, native $1
Rectified 75c
Cassia oil, redist. 50c
Citronella oil, Ceylon 40c
Citronellol 40c
Coriander oil $4.50
Cumin seed, Morocco 1c
Ephedrine alkaloid 16c
hydrochloride 8c
sulfate 9c
Erigeron 5c
Eucalyptus oil 10c
Hemlock oil 35c
Lavender spike oil $1
Lemongrass oil 35c
Lime oil, dist. 50c
expressed $1.50
Mace oil, dist. 50c
Nutmeg oil 25c
Olive oil, edible 75c
Patchouli oil 50c
Rosemary oil $1.25
Senega root 5c
Spearmint oil 25c
Tansy oil 65c
Thyme oil, red NF 15c
white 15c
Vetiver oil, Java $3
Wormwood oil 15c

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index remained unchanged at 113.1. Developments in the Near East caused concern regarding future supplies of gum tragacanth. This commodity comes mainly from Persia. Reports indicate ample supplies there but the difficulty of obtaining them for shipment to this market is almost insurmountable.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index remained without change at 521.0. Dealers were of the opinion that shortages would become more acute as time moves ahead, citing restricted labor, shipping, and other retarding factors as the reason for their predictions. The supply position during the month of June was more important than price considerations.

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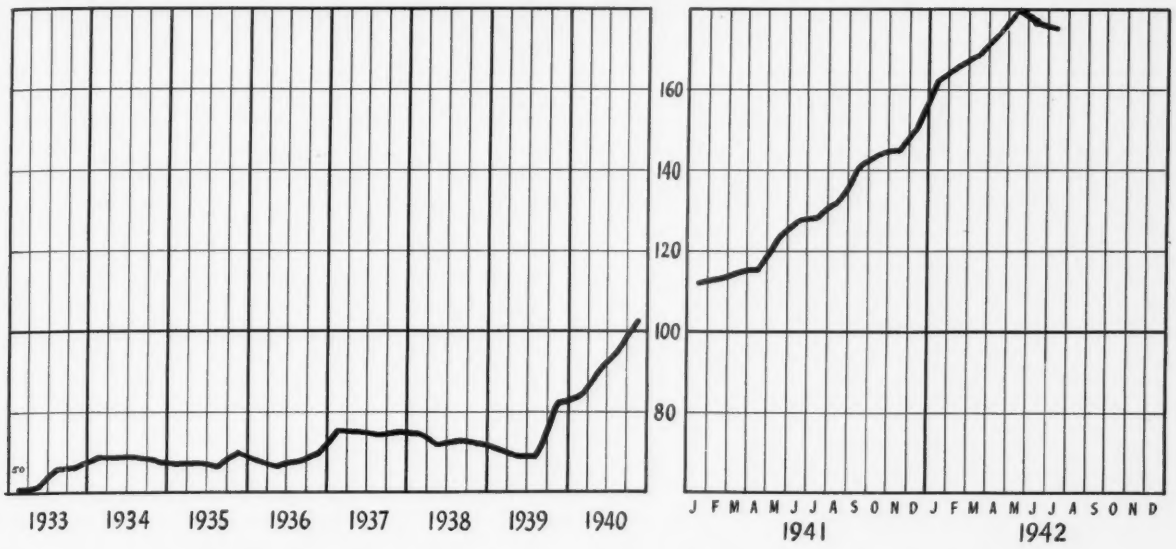
50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for June, 1942, declined to 175.8 from the previous 178.1. There were no price changes in the select group of medicinal chemicals, botanical drugs and cosmetic raw materials which enter into our calculations. The changes in the essential oil group alone accounted for the decline in the main commodity chart. Business on a whole continued very quiet during the period under review.

• Prices quoted in this section were current on the first of this month.

SHORTAGES

Some botanical drugs may be extremely difficult to obtain later in the year because of import regulations that will be put into effect July 1. It is reasonable to assume that in view of present conditions no permits will be accepted on merchandise not considered essential under the Government order. Some houses are urging consumers to check their stocks closely since the major problem in the months ahead will likely be one of supply rather than price.

Business in essential oils generally remain at a low level and suppliers are at the moment centering their attention on the War Production Board's "end use" allocation classification system.

A leading dealer in this market under a special notice to the trade calls attention to the uniform classification system adopted by W.P.B. to trace the flow of materials in terms of "end use" from primary producers to finished products.

The allocation classifications must be used as follows: "On all orders placed by manufacturers, fabricators, primary producers, and so on, after June 30, 1942, and on all orders calling for deliveries after July 31, 1942, regardless of when the orders are placed." It will apparently become increasingly difficult to secure merchandise in practically all categories and the consumer who protects himself most by following the desires of W.P.B. will probably fare the best in the long run, it is pointed out.

EGYPT

Mechanized armies have swept across the Egyptian border and World War II is now raging in that country in all its fury. Great armies are on the move all through the Near East. On the results of the battles in that area will depend the future supply of several important raw materials used in our industry.

Exports of Egyptian henna in 1941 amounted to over 1,000,000 pounds, the bulk of which was shipped to the United States. Acreage and production figures for the 1940-41 season are not yet available, but they are estimated to be about the same as in 1939-40, when 3,141,568 pounds were produced from 1,778 acres.

Colocynth acceptable to the American drug trade is produced in the Anglo-Egyptian Sudan, the crop averaging about 100 metric tons annually. A powerful cathartic, colocynth comes from the dried pulp of a yellow gourd-like fruit, the Citrullus colocynthis, cucurbitaceae, which is found both cultivated and wild in Asia and Africa. The fruit, a globular berry about the size of a small orange, is gathered just before maturity, dried in the sun and peeled.

In 1938 (latest export figures available) the total quantity of colocynth exported was cut in half, 52 metric tons compared with 103 tons in 1937. Crops vary greatly from year to year because of uncertain bearing qualities of the uncultivated plant and because of labor difficulties. The task of extracting colocynth pulp from its hard rind is so disagreeable, on account of the bitter dust thrown off in the process, that laborers will turn to other work if it is available. Because of its violent effect, colocynth is rarely used alone in medicine but is more commonly administered with a sedative or carminative.

Gum tragacanth is another important item from the Near East. Obtained mostly in Iran, production is estimated at 4,000 metric tons, with local consumption scarcely exceeding 200 tons.

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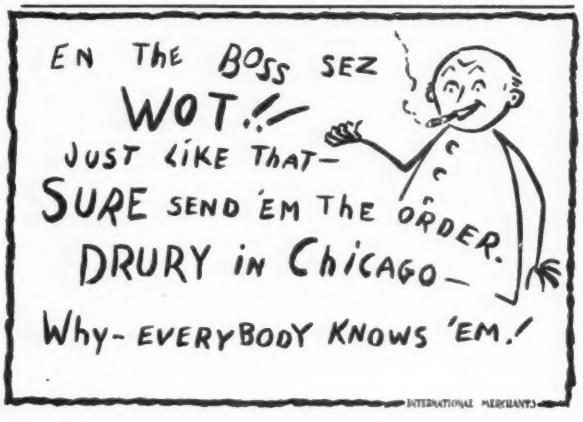

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The United States, the most important purchaser, takes the better qualities of the gum, but European countries also share in the market.

This product has been under strict monopoly control in Iran, although reports to this country indicate that the private monopoly on exportation is likely to be abolished. The plant producing the gum grows wild and is generally gathered on untilled public lands by independent workers who work when so inclined and are paid according to the sale price of the gum. There are no Iranian trade associations which have connection with the production, sale, or export of gum tragacanth, but prices are established by the monopoly.

VITAMINS

A meeting of producers and concentrators of fish liver oils will be held in San Francisco, to discuss prices of vitamin A oils, Price Administrator Leon Henderson announced.

The meeting has been called by the chemical branch of the industrial material price division of the Office of Price Administration.

Heretofore, vitamin A oils have been subject to the provisions of Revised Price Schedule No. 53, covering a wide variety of fats and oils. Studies made by the Office of Price Administration indicate that the special problems of the vitamin A oil industry may be adequately met by a regulation establishing maximum prices for vitamin A oils specifically.

In recent months the vitamin A oil market has been somewhat disorganized as a result of the sharp increases in prices for vitamin A oils that took place last fall and winter. Prices have not yet declined from those high levels, and sales volume has decreased because buyers have been unwilling to pay the high prices quoted.

Vitamin producers recently asked the chemical branch of the Office of Price Administration to call an industry meeting to discuss a special price regulation to provide a level of prices which would encourage wider sales.

The vitamin business has been one of the biggest lines in the retail drug trade with sales about $100,000,000 annually.

LIME OIL

Despite its size, tiny Colima, located about two-thirds of the way down the west coast and almost parallel to Mexico City, is Mexico's chief lime producing State. Having an area of only 12,009 square miles and a population of 61,923, Colima ranks first with 20 per cent. of the lime producing trees, neighboring Michoacan second with 16 per cent., and Veracruz third with 15 per cent.

Reasons for Colima's definite lead are to be found in its humid, tropical climate and rich volcanic soil, which provide ideal conditions for cultivating this fruit. The growing of limes is Colima's number one industry, outranking production of sugar, coquito nuts, coconuts, rice and other foods.

Cultivation of the lime tree on an important scale in Colima began in 1900 and has expanded at a tremendous rate during the past few years. Since 1936, an average of 25,000 trees have been planted annually. Producing trees in this State in 1939 were estimated at 150,000; now they are said to number between 200,000 and 250,000. During 1941, about 40,000 new trees were planted, and it is reported that 60,000 new trees may be set out this year. Colima trees reach full production about 6 years after planting and continue to bear for 15 to 20 years.

Although production of lime oil is a fairly recent development, this aspect of the industry is mounting steadily in importance. Practically all the lime oil plants of Mexico are located in Colima. The first plant was built in 1935, and some 2800 pounds of distilled oil were produced that year from 400 tons of limes. In 1941, over 48,000 pounds of lime oil were distilled from more than 5,000 tons of limes delivered to the seven mills now in operation. Three new mills are being built this year, and it is estimated that 1942 production of lime oil will exceed 50,000 pounds.

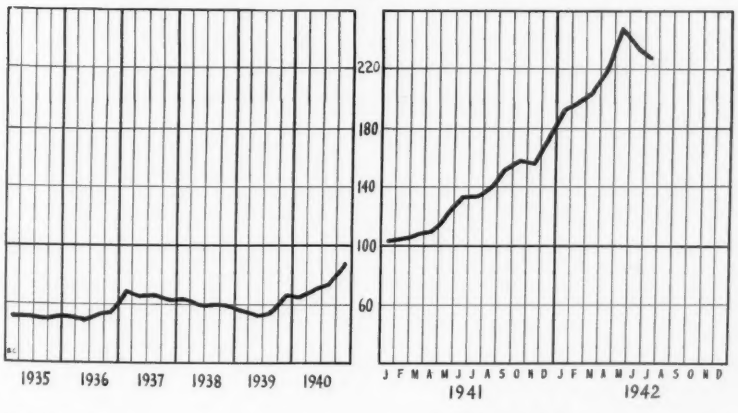
VANILLA

Reports issued from one source early in the month indicated that new crop production of Mexican vanilla beans would be the largest on record and might top 600,000 pounds. Since this prediction was based on early estimates, conditions have intervened, according to other sources, which would greatly reduce this figure.

Weather of late in the producing area of Mexico has been so dry and hot that the fruit is said to be dropping off the vines. The drought is already said to have affected the crop to the extent that production will be 40 per cent. below earlier predictions. If this is true it should be pointed out that production on this basis is still above normal. However, the crop is still some time in the future, and early predictions are not always safe to go by.

Some whole Mexican beans are expected to arrive here within the next few weeks. Present supply must last at least a year. With very few unsold Bourbon beans still on the market and no more in sight, the market as a whole was firm at prevailing levels.

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oil index declined to 226.9 from the previous 234.1. This was occasioned by the reduction in the price of anise oil, now $3.30 a pound, cananga oil now $17 a pound, cassia oil now $10.50 a pound, citronella now $1.30 a pound, eucalyptus now $1 a pound, and lime oil now $13.50 a pound. Government restrictions on imports caused some concern in the trade.

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OLIVE OIL

Production of olive oil in Spain for 1942 is estimated by the trade at 400,000 metric tons. Picking of olives for pressing of olive oil has suffered from transportation difficulties because of the scarcity of gasoline and the shortage of food for animals.

Stocks of edible oil from the 1940-41 crop are reported to be between 4,000 and 5,000 metric tons. A total of 3,981 metric tons of edible olive oil was exported by sea to foreign countries in 1941, but in January and February 1942 no such shipments were made.

No authorization has been given to export olive oil, nor have prices for exportation been established. Exporters and refiners have been instructed, however, to stock some 15,000 metric tons of fine or virgin olive oil, the use or destination of which is unknown.

ALOES

Production of aloes in Curacao in the quarter ended March 31 fell to a new low—only 100 cases of 125 pounds each. Exports of only 200 cases during this period likewise were disappointing. In contrast, production of aloes during the first quarter of 1941 amounted to 600 cases, and exports were 300 cases.

This marked decrease in production is attributed in part to the expanding petroleum industry in Curacao and Venezuela which is drawing labor from other fields with its attractive wages.

Aloes, used in medicine as a mild laxative and for other purposes, comes from the dried juice of aloe-bush leaves. Sap from the cut leaves is drained off and reduced by boiling to a thin paste which is allowed to harden, usually in the cases of final shipment.

Although varieties of aloe grow in parts of Africa and South America, the United States depends chiefly on the Netherlands West Indies for its supplies of this raw material.

COD LIVER OIL

Demand for Newfoundland cod liver oil has continued strong, but production has been below normal, because of poor fishing in certain sections and the scarcity of fishermen, many of whom have taken up other employment.

Prices have remained high and have particularly affected poultry oil sales, which have fallen off markedly, the trade turning to less expensive substitutes.

Stocks of oil on hand are light, and there is a ready demand for available supplies at present prices.

Exports for the last two fiscal years are as follows: Refined oil, 1939-40, 57,317 imperial gallons; 1940-41, 242,185 imperial gallons.

EPHEDRINE

Manufacturers of ephedrine salts announced price reductions during the current trading period with the following schedules now prevailing: Ephedrine alkaloid U S.P. XI anhydrous, 100 oz. bottle, 57c per oz.; 50 oz. bottle, 59c an oz.; 25 oz. bottle, 60c an oz. Ephedrine sulfate U.S.P. XI crystals and powder, 100 oz. bottle, 44c an oz.; 50 oz. bottle, 46c an oz.; 25 oz. bottle, 47c an oz. Ephedrine hydrochloride U.S.P. XI is 3c per oz. higher than ephedrine sulfate.

PYRETHRUM

Pyrethrum, a floral derivative used in insecticides, was on June 13, placed under complete allocation and end use control by General Preference Order M-179, issued by the Director of Industry Operations and effective immediately. Each producer must file reports.

SULFANILAMIDE USP XI

Producers have reduced the price of sulfanilamide U.S.P. XI by 25c per pound and now quote: 100 lb. CT metal drum, $1.05 per lb.; 25 lb. fibre drum, $1.20 per lb.

RIBOFLAVIN

This item was reduced 15c a gram during the current trading period and is now quoted at 90c a gram in 100 gram bottles, 93c a gram in 25 gram bottles and $1 a gram in 1 gram bottles.

ALCOHOL

The War Production Board consulted with the distilled spirits industry at Louisville early in June, with an eye toward aiding it to play a more important role in the overall program to produce ethyl alcohol, it was indicated. The goal for 1943 is now set at 500,000,000 gallons.

Every effort will be made to supply all distillers with the equipment and materials needed for making high proof alcohol. Year-round operations will also be urged on all members of the industry.

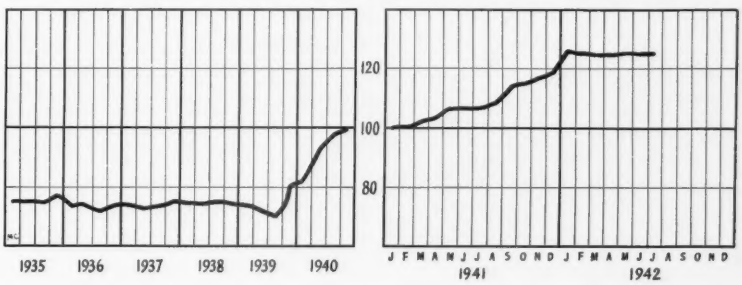
Neither the Government nor the industry know the real capacity for producing alcohol, as the industry has never been called upon before to produce all it could.

At the present time capacity from all grain facilities (capacity of distilled spirits industry and commercial alcohol industry) is estimated by an industry spokesman at 400,000,000 gallons. This figure does not include synthetic alcohol.

The industry believes that total production of 500,000,000 gallons can be reached and that this figure will be adequate to meet the needs for both smokeless powder and synthetic rubber.

The medicinal chemicals index remained without change at 124.4. The general line of fine chemicals is moving at a reasonably good rate but new business is quieter than it was a few weeks ago. Most houses are finding it extremely difficult to carry on business because of the many Government restrictions.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



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CONVEYORS, DRYERS, FILLERS: Liquid, powder, tube; Filters, Kettles, Labelers, Mills, Mixers, Coating Pans, Percolators, Sifters, Tablet Machines, Tanks, etc. Send us your inquiries and a list of your idle equipment Loeb Equipment Supply Co., 912 North Marshfield Ave., Chicago, Ill.

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EQUIPMENT FOR SALE: 1 Bantam Mikro Pulverizer with accessories. In excellent condition, less than two years old—$250. Box No. 377 DRUG AND COSMETIC INDUSTRY.

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Machinery Wanted

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